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# End Results in Infant Feeding

Nutritional disturbances such as Marasmus, Decomposition, Atrophy, Intoxication, etc., are usually *the end results* of mild beginning fermentative diarrhoeas. Fermentative diarrhoeas are in turn the end results of improper carbohydrate in the infant's intestines.

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# CALIFORNIA AND WESTERN MEDICINE

VOLUME XXVIII

APRIL, 1928

No. 4

## RECENT ADVANCES IN THE TREATMENT OF PERNICIOUS ANEMIA\*

By CYRUS C. STURGIS, M. D.

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**P**ERNICIOUS anemia is a condition of unknown etiology, most frequently occurring during middle life or later, usually characterized by a marked reduction in red blood cells and hemoglobin in the peripheral blood, always associated with an achlorhydria and frequently complicated by degenerative changes in the spinal cord. Until recently true pernicious anemia has been considered as inevitably fatal although a great majority of patients, at some time during the course of the disease, show at least one period of improvement which in some instances may be of long duration.

### PERNICIOUS ANEMIA SYNDROME

It is not the purpose of the present article to describe at length the clinical features of this disease, for it is a syndrome which is now recognized with a fair degree of conclusiveness. With the possibility of a cure at hand, however, it is now of great importance for the general practitioner to keep constantly in mind the more obvious symptoms and signs of the condition. By this means only can pernicious anemia suspects be detected and studied in a thorough manner for the purpose of confirming or eliminating the diagnosis. As Hurst<sup>1</sup> has emphasized, the provisional diagnosis of pernicious anemia can be made without the aid of modern methods, as certain striking features are apparent following even a superficial examination. For example, if a person of middle age or older complains of the symptoms observed in any severe anemia (ease of fatigue, dyspnea, palpitation, edema of the ankles) and in addition has a pronounced yellowish pallor, it is probable that the patient has pernicious anemia. If in addition there are gastric symptoms, an achlorhydria, persistent numbness and tingling in the hands and feet and impairment in the sense of position of the lower limbs, the diagnosis of pernicious anemia is almost certain, even before the blood is examined. While it is not our intention to discuss the finer details of the diagnosis of this disease, it should be emphasized that the

condition can be recognized with a high degree of accuracy following a thorough study.

### ETIOLOGY

Nor is it possible at this time to speculate concerning the etiology of the disease. There is a wide diversity of opinion concerning this, and there is no convincing evidence at present which explains the mechanism of the production of the anemia; even more vague are the views concerning the changes in the nervous system. There have long been two opposing theories concerning the actual cause of the anemia; the one maintaining that it is the result of defective blood formation, and in support of this there is very strong evidence; the other asserting that it is due to increased blood destruction. There is some evidence, by assumption, which is in accord with this latter view. It is entirely possible that the anemia may result from the operation of a combination of the two factors.

The chief purpose of this article is to discuss the efficacy of the more recent therapy of pernicious anemia and to give in detail the practical methods whereby the practitioner may apply it efficiently.

### THE TREATMENT OF PERNICIOUS ANEMIA

In 1925, seventy-six years after the symptom complex of pernicious anemia was first described by Thomas Addison, there was no conclusive evidence to indicate that a curative therapy was available. No other proof is required of this than the very large number of therapeutic measures which were alleged to be of value; furthermore, experienced observers were all of the same conclusion, namely, that eventually the disease always terminated fatally. It is possible that such treatment as general measures to improve the patient's nutrition, dilute hydrochloric acid, arsenic and iron administered in a variety of forms and by various routes, splenectomy, blood transfusions, and the removal of foci of infection, have accomplished a certain amount of good. There is no evidence to indicate, however, that any one of these remedies, or a combination of them, have uniformly and significantly improved the health of a carefully observed group of patients with pernicious anemia or prolonged their lives for a noteworthy period.

In 1926 Minot and Murphy<sup>2</sup> summarized the experience of previous investigators with the dietary treatment of pernicious anemia and presented for the first time their own results, which indicated very strikingly the beneficial effect of a liver diet in the treatment of this disease. This report followed the experimental investigations of

\* From the Thomas Henry Simpson Memorial Institute for Medical Research, University of Michigan, Ann Arbor, Michigan.

Being the third annual Scripps Clinic lecture, delivered at the Scripps Metabolic Clinic, La Jolla, San Diego.

Whipple and Robscheit-Robbins,<sup>3</sup> who demonstrated clearly that, in the anemia of dogs due to hemorrhage, the regeneration of blood was augmented, following the addition of liver to the diet. The most recent publication by Minot and Murphy<sup>4</sup> summarizes the effect of the liver treatment in 125 patients with pernicious anemia who had received this therapy for a period varying from three months to three and a half years. They conclude that "practically all patients with this disease are benefited, usually markedly and promptly. In almost all instances the red blood count had risen above four million per cubic millimeter, and if the diet had been taken continuously and satisfactorily the counts had remained above this level to the present time."

Since the opening of the Simpson Memorial Institute we have treated approximately fifty patients with pernicious anemia by use of calf's liver or a liver fraction.\*<sup>5</sup> In those patients without serious neurological complications, and these constituted a great majority, the red blood cells increased from an average of 1,500,000 per cubic millimeter for the group, to an average of 4,000,900, red blood cells per cubic millimeter. The patients have been under observation a variable period of time, but none of them longer than seven months. The lowest count of the series was 4,100,000 after twenty-nine days of treatment, and there is every reason to believe from past experience that the blood count of all of these patients will reach normal limits with additional treatment. The rapidity with which the red blood count approaches normal following the treatment with liver, varies with different patients, but the increase, in our experience, has been at a rate averaging between 80,000 and 100,000 red blood cells per cubic millimeter daily. It is impossible to conclude from this series of patients alone that the feeding of one-half pound of liver daily will cause the blood to return to normal in patients with uncomplicated pernicious anemia, but these results so closely corroborate those reported by Minot and Murphy that the beneficial effects of liver in these patients appear to be an established fact. Associated with the changes in the peripheral blood, is a very striking improvement in the general condition of the patients which is apparent within three to five days after the beginning of the treatment. This improvement is very impressive and is entirely comparable in extent to the striking changes observed following the administration of dried thyroid gland to patients with myxedema. The earliest favorable evidence is an increase of appetite which in the course of a few weeks may become ravenous; this is associated with a general sense of well-being and improvement in strength. Within a short time after the treatment is begun there is a disappearance of fever, the yellowish pallor and the digestive

symptoms, a return of the pulse rate to normal, a loss of edema and a gain in body weight. Almost without exception all of the symptoms which are directly referable to the anemia disappear in the course of a month or six weeks.

#### CHANGES WHICH OCCUR IN THE BLOOD FOLLOWING THE ADMINISTRATION OF LIVER

The most striking and constant early change which occurs in the peripheral blood following the ingestion of a requisite amount of liver daily, is an increase in the percentage of young red blood cells or reticulocytes. This increase is almost always apparent within three to five days after the treatment is begun, at which time the percentage count increases from a normal of 1 per cent or less, to 5 or 6 per cent. The increase continues until between the fifth to the eighth day, at which time it usually reaches its greatest height of from 10 to 30 per cent. There is then a gradual decline and at the end of approximately fifteen or twenty days the percentage of reticulated cells reaches normal limits, where it remains thereafter. Following ten days or two weeks of the treatment there is an appreciable rise in the red blood count, which continues to increase in an amount varying between 80,000 and 100,000 red blood cells per cubic millimeter daily until normal is reached. The hemoglobin percentage rises at a somewhat slower rate than the red blood count, and as a result the color index, which is at first high, gradually falls to below 1.0. With the return of the red blood count to normal, there is a disappearance of anisocytosis and poikilocytosis. The other changes in the blood are not striking, although there is quite constantly an increase in the white blood cells to 10,000 per cubic millimeter or slightly higher, after a few days of the liver therapy.

Recent developments have shown that the original diet suggested by Minot and Murphy<sup>2</sup> was unnecessarily complicated. It consisted of 120 to 240 grams of cooked calf's or beef liver, 120 grams of beef or mutton muscle meat, not less than 300 grams of vegetables, and 250 to 500 grams of fruit, especially peaches, apricots, strawberries, pineapple, oranges, and grapefruit. In addition, one egg and 240 grams of milk may be given daily. To allow for a total intake of between 2000 and 3000 calories, other foods such as breads, potato and cereals may be added to the diet. Upon theoretical grounds, it was recommended that the amount of fat be limited to 70 grams daily, although in a recent publication<sup>6</sup> the authors state that "excess of fat has not inhibited a rapid growth of blood cells." It has been our experience that the one essential factor in the success of the diet is a sufficient quantity of liver daily, and unless the diet of the patient under consideration is strikingly inadequate in other respects the remainder of the food intake may be left safely to the patient. A practical method of treatment is to give the patient one-half pound of liver daily, either cooked or uncooked, until the blood returns to normal. This may be prepared according to a wide variety of recipes, but it is

\* Through the courtesy of the Harvard Pernicious Anemia Commission we were permitted to use this fraction of liver which was prepared according to the method of Cohn, Minot, et al. These authors describe the fraction as follows: "This fraction represents about 1 per cent of the liver. It contains nitrogen, but is non-protein in nature, is precipitated by alcohol and soluble in water. The indications at present are that the effect is not due to known vitamins."

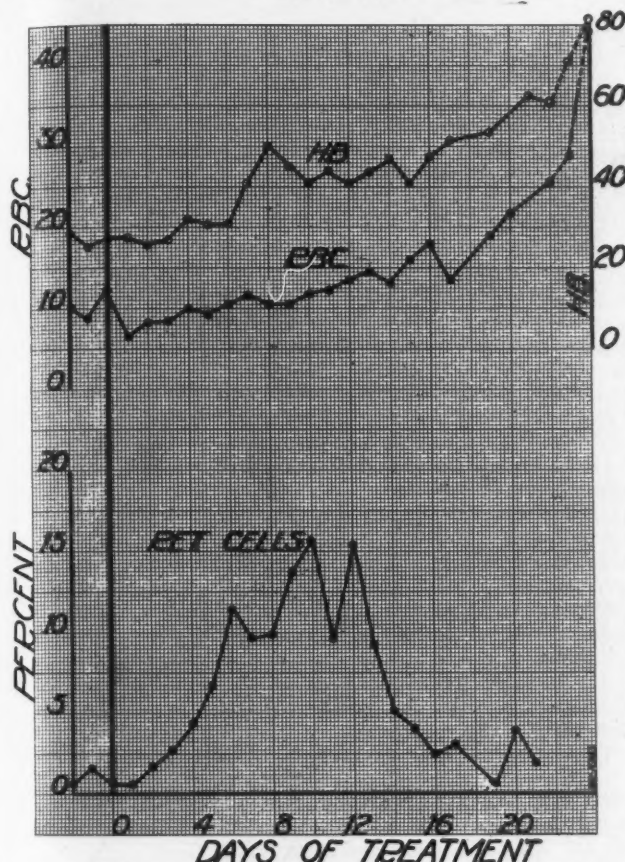


Chart I—The effect of the feeding of liver on the hemoglobin, red blood cells and reticulated cells of the peripheral blood in a patient with pernicious anemia. The equivalent of one-half pound of liver was first given at a point indicated by the heavy vertical line at the left of the chart; this amount was continued daily throughout the period of observation. Before the liver treatment the reticulated cells averaged slightly over 1 per cent; within a short time after the beginning of the treatment there was a rapid rise in these cells until the peak of about 15 per cent was reached on the tenth day after the liver diet was begun; after a rapid secondary rise, the reticulated percentage reached normal ten days later, which was on the nineteenth day of treatment. There was a gradual but constant increase in the hemoglobin percentage and red blood cell count until on the twenty-second day when the red blood cells had increased from a level of about one million to two and a half million per cubic millimeter and the hemoglobin was 84 per cent. Interval from an initial reading of 24 to 60 per cent. After seventy-eight days of treatment the red blood count was five million. The hemoglobin had likewise increased during this interval from an initial reading of 24 to 60 per cent. After seventy-eight days of treatment the red blood count was five million per cubic millimeter and the hemoglobin was 84 per cent.

important to impress upon the patient that this quota of liver must be taken regularly. Many patients prefer to take the liver in the uncooked form in amounts of one-fourth pound at 10 a. m. and one fourth pound at 3 p. m. The most efficient method of preparing uncooked liver is the following one suggested by Mrs. Dorothy Stewart Waller, dietitian of the Simpson Memorial Institute: "Trim uncooked liver free from connective tissue. Place through the food chopper, using the finest knife. Press the ground liver through a potato ricer. Add one-third of a cup of liver pulp to one-half cup of tomato bouillon, add salt and pepper to taste." Liver prepared in this manner is not unpleasant to the patients, and by consuming it in the middle of the morning and afternoon they are free to eat foods of their own choice at

regular meal times. If this amount of liver is consumed daily, the blood of patients with uncomplicated pernicious anemia will return to normal. After the normal level has been reached and maintained for approximately four weeks, the amount of liver may then be reduced to one-fourth pound daily. In another month, if there is no decrease in the red blood cells, it may be further reduced to one-fourth pound five days a week. It is probably possible to reduce the quota of liver to even smaller amounts than this, but the minimum amount of liver which will keep a patient's blood in normal condition has not yet been determined and it is probable that this varies with individual patients. The only safe rule is to reduce the dosage gradually to the smallest amount which will keep the red blood count at 5,000,000 red blood cells per cubic millimeter. Experience teaches us, however, that some liver must be taken constantly in order to avert a relapse of the disease. For this reason it is impossible to state that the liver treatment for pernicious anemia is a cure in the strict sense of the word. Nor is it possible at present to state the duration of the improvement which results from this form of therapy. Time only will give the answer to these questions. Minot and Murphy have reported three patients who have recovered, and after continuously taking the liver diet for three and a half years have an average count of 4,810,000 red blood cells per cubic millimeter; this is the longest period of observation of patients with pernicious anemia following the liver treatment.

It is to be expected that in a certain proportion of patients it will be reported that the treatment has failed to produce beneficial effects. In our experience there has been a group of patients who have failed to improve or have suffered a relapse because they have not consumed a sufficient quantity of liver. This may be averted by careful observation of the patient's red blood cell count at regular intervals, as this is the most efficient way to determine accurately that the treatment is being carried out properly. In some instances patients discontinue the liver because they develop an aversion to it, but with the introduction of the liver fraction as a substitute for raw or cooked liver this difficulty may be eliminated.

#### THE EFFECT OF THE LIVER DIET IN PATIENTS WITH PERNICIOUS ANEMIA AND ASSOCIATED NEUROLOGICAL CHANGES

Evidence of involvement of the nervous system has been apparent in approximately 80 per cent of all patients with pernicious anemia whom we have observed. In a majority of instances the complaints have been minor ones such as numb-



ness and tingling of the hands and feet. In a smaller group the condition has been more severe, as evidenced by difficulty in locomotion due to a lesion in the posterior columns of the spinal cord with a resultant loss of the sense of position of the legs; in addition a few of these patients have had an associated spastic paralysis as a result of degenerative changes in the lateral columns of the cord. The feeding of liver has caused the blood of these patients to return to normal in the usual period of time. If the neurological complaints have been of a minor nature they have usually disappeared or become much less apparent at the time the blood has returned to normal. It is entirely possible that this improvement is due to a return of the patient's strength and sense of well-being at which time it is to be expected that symptoms such as numbness and tingling would be less annoying. A large percentage of patients who have the more advanced neurological complaints likewise show considerable improvement, but it is too much to hope that the patients of this group will again walk normally, even though all evidence of the anemia disappears. These patients have received, in addition to the liver therapy, massage and exercises which are designed to teach them better coordination of the muscles of the lower limbs. It has been our practice to urge such patients, as soon as possible after admission to the hospital, to sit up in a chair and later to attempt to stand, at first with assistance and later without support. They are then encouraged to take a few steps with the feet spread far apart in order to form a broad base, and have eventually, in most instances, been able to walk fairly well with the aid of a cane. There is no evidence to indicate that the lesion in the spinal cord is favorably affected, for the ability to walk again may be due entirely to the improvement in the patient's general strength and to a better method of walking which partially overcomes the disability.

In a small group of patients with advanced neurological complications there has been a loss of control of the sphincters of the rectum and the bladder. A few of these have finally developed a cystitis which was associated with chills and fever and pyuria. In a few such instances the favorable effect of the liver, or liver fraction, appears to have been neutralized, for the blood did not return to normal after a prolonged period of treatment. It is not known if any severe infection in a patient always has this effect, but it is certain in any event that the presence of a severe and obvious infection may explain the failure of the liver treatment in a certain number of patients.

Thomas Henry Simpson Memorial Institute for Medical Research, University of Michigan, Ann Arbor, Michigan.

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### THE ROENTGEN DIFFERENTIATION OF BONE TUMORS\*

By WILLIAM B. BOWMAN, M. D.

AND

LOWELL S. GOIN, M. D.

Los Angeles

DISCUSSION by Lloyd Bryan, M.D., San Francisco; Henry Snure, M.D., Los Angeles; William H. Sargent, M.D., Berkeley.

THE presence of a bone tumor is usually obvious, although certain tumors may be confused with syphilis or osteomyelitis. The task of the roentgenologist is to classify the tumor, particularly with reference to its possible malignancy. The most valuable method of study is by application of Baetjer's four cardinal points. These are: origin of the tumor; presence or absence of bone production; condition of the cortex; and invasion of adjacent tissues.

#### ORIGIN

The tumors arising from the cortex are: periosteal sarcoma, osteosarcoma, enchondroma, ossifying hematoma, and cysts (rarely).

Ossifying hematoma is not a bone tumor, nor does it arise from the cortex; but, since it may be confused with bone tumors, and since it occurs between the periosteum and the bony cortex, it is included here. The value of the study of the origin of a tumor is apparent at a glance. If it can be established, for example, that a tumor is cortical in origin, it follows that the tumor is not a carcinoma, since carcinoma can arise only in the medulla because it is borne there and not to the cortex by the circulatory system. And, since it is rare to have a cyst originating in the cortex, the probabilities are against the tumor being a cyst.

The tumors arising from the medulla are: medullary sarcoma, carcinoma, cysts, giant cell tumor (giant cell sarcoma), enchondroma.

The same reasoning as used above will serve to eliminate certain tumors as possibilities in tumors arising from the medulla. That is, if a tumor is medullary in origin, it positively cannot be a periosteal sarcoma, an ossifying hematoma, or an osteoma. These three are definitely ruled out and, by use of the other three points, further exclusion may be accomplished.

#### BONE PRODUCTION OR BONE DESTRUCTION

Certain tumors are characterized by the production of bone, *e. g.*, osteoma. Others destroy bone only, *e. g.*, carcinoma, which being composed of

\*Read before the Radiology Section, California Medical Association, at its Fifty-Sixth Annual Meeting, April, 25-28, 1927.

epithelium, obviously cannot produce bone. Still others both destroy and produce bone, *e. g.*, the sarcomata, the bone production varying inversely with the degree of malignancy. A fourth group, cysts and enchondroma, produce bone only after fracture has occurred.

Bone production occurs in the following tumors: periosteal sarcoma, osteo sarcoma, osteoma, ossifying hematoma, and bone cyst, and enchondromata after trauma.

Bone destruction occurs in: all sarcomata, carcinoma, cysts, myeloma, giant cell tumor.

We now have two facts by which we may study the tumor and which will enable us to exclude certain additional growths. If, for example, it has been determined that the tumor in question is of cortical origin and is characterized by the production of new bone, we may rule out medullary sarcoma, giant cell tumor, cysts, myeloma, enchondroma, and carcinoma. This leaves the bone-producing tumors of cortical origin to be considered, namely, periosteal sarcoma, osteoma, and ossifying hematoma. Here it may be noted that the new bone production of peripheral sarcoma is quite characteristic and consists in the laying down of parallel thin plates of bone at right angles to the long axis of the shaft.

We now proceed to the consideration of the third point.

#### CONDITION OF THE CORTEX

The cortex is expanded and thinned by the following tumors: enchondroma, bone cyst, and giant cell tumor. These tumors do not break down the cortex unless they become so large that they do so mechanically.

The cortex is destroyed by: sarcoma (all types) and carcinoma. This is a very important point. Barrie has said that any chronic lesion which has broken through the periosteum should be regarded with suspicion as to its malignancy unless known definitely to be suppuration. Benign tumors grow slowly and in the direction of least resistance, namely, up and down the length of the bone. Therefore they tend to expand the bone and to give it a spindle shape. Malignant tumors grow rapidly in all directions, destroying bone as they grow. Therefore usually they destroy the cortex rather than expand the bone.

If we now continue the analysis of the bone-producing tumors of cortical origin, we find that the remaining possibilities are: periosteal and osteosarcoma, osteoma, and ossifying hematoma. Suppose that it is now noted that there is destruction of the cortex of the bone. Hematomata and osteomata do not destroy the cortex and are thus eliminated from further consideration. The points which aid in distinguishing between periosteal and osteosarcoma will be discussed later.

#### INVASION

All malignant tumors tend to invade the surrounding tissues. Benign tumors never do.

Benign tumors have sharply defined limiting walls. They rarely break down the cortex unless mechanically, after the growth has become very large. Giant cell tumors are an exception to this

rule and, according to Bloodgood, may destroy cortex without any increase in malignant characteristics. Benign tumors are unaccompanied by bone production except when they have caused pathological fractures. Under the same conditions, and not otherwise, periosteal reaction and proliferation may occur. They grow slowly and expand and displace bone, rather than destroy it. They rarely involve joints.

Malignant tumors grow rapidly and destroy the bone rather than expand it. They are accompanied by bone production. Their outlines are vague and they are not limited by sharply defined walls. They destroy the cortex early and invade the surrounding tissues. These differential points may be tabulated as follows:

#### *Differential Diagnosis Between Benign and Malignant Tumors*

<i>Benign</i>	<i>Malignant</i>
Sharply defined limiting walls.	Poorly defined, vague and indefinite walls.
Rarely break down cortex and only late in course, when tumor has become so large as to break cortex mechanically.	Destroy cortex early.
Rarely involve joints.	Often involve joints if adjacent.
Expand and displace bone.	Invade and destroy bone.
Ossification proportionate to growth.	Ossification not proportionate to growth.
Growth slow.	Growth rapid.
No periosteal proliferation or reaction except when fracture occurs.	Periosteal proliferation and reaction common.

Let us now consider, I. The Malignant and II. The Benign Tumors.

#### I. THE MALIGNANT TUMORS SARCOMA

Sarcoma may be conveniently studied as (a) periosteal sarcoma, (b) osteosarcoma, and (c) medullary sarcoma. There are other classifications, many of them superior from a pathological standpoint, but we have no concern with the cell types of the tumor, as we cannot see the cells and we need concern ourselves only with identifying growth as a sarcoma of certain origin.

#### PERIOSTEAL SARCOMA

This tumor arises from the periosteum, as its name indicates, and occurs chiefly at the ends of the long bones. The femur, tibia, and humerus, are most frequently involved. This growth is not common in the middle third of a bone, and the presence of a growth there is evidence against its being a periosteal sarcoma. Usually it is seen first as a shallow depression in the cortex of the bone with thin plates of bone in the soft tissue perpendicular to the long axis of the bone. This bone formation is quite typical of periosteal sarcoma. It is a bone-producing tumor, most of the bone being laid down in the soft tissues. It does not expand the bone and there is comparatively little bone destruction because the growth is so extremely malignant that death ensues before extensive destruction has occurred. A rapidly growing



TABLE SUMMARIZING BONE TUMOR SIGNS AND SYMPTOMS

Tumor.	Origin.	Bone Production and bone Destruction.	Condition of Cortex.	Invasion.	Outline and Density.	Location.
Periosteal sarcoma.	Periosteum and cortex.	Productive and destructive. New bone perpendicular to shaft.	Eroded. Death usually occurs before much destruction has occurred.	Invades tissues rapidly.	Outline vague. Tumor density greater than that of surrounding tissue.	Ends of long bones, femur, tibia, and humerus most often.
Osteosarcoma.	From cortex.	Bone production and destruction.	Extensive destruction of shaft of bone.	Invades tissues.	Outline vague. Density sometimes very great.	Long bones.
Medullary sarcoma.	From medulla.	Purely destructive.	Extensive destruction.	Extensive invasion.	Vague outline, decreased density.	Ends of long bones.
Carcinoma.	From medulla.	Purely destructive.	Destroys cortex. Fracture common.	Invasive.	Vague outline. Areas of decreased density; sometimes nodes of increased density.	Spine, ribs, pelvis, skull, and middle third of long bones.
Giant cell tumor.	From medulla.	Expands bone; no new bone production.	Cortex intact ordinarily.	No invasion.	Distinct outline. Tumor density less than that of normal bone.	Ends of long bones and mandible.
Myeloma.	From medulla.	No bone production.	Cortex may be perforated. No marked destruction.	Invasive.	Multiple growth; regular outlines; areas of rarefaction.	Long bones.
Cysts.	From medulla; or rarely from cortex.	No bone production.	May expand bone slightly.	No invasion.	Sharply defined outline. Density decreased.	Long bones.
Enchondroma.	Either medullary or cortical; multiple tumors.	No bone production.	Intact. Bone may be expanded.	Non-invasive.	Distinct outline. Sharply limited walls. Density decreased.	Near epiphysis of long bones.
Osteoma.	From cortex. Perpendicular to shaft.	Bone production extensive. Tumor is of new bone.	Intact.	No invasion.	Outline distinct. Tumor of great density.	Any bone; near shoulder and knee most common.

periosteal sarcoma may invade an adjacent joint and involve the capsule and the periarticular tissues. Because of the spindle shape of the joint and the presence of fluid and periarticular swelling it may be confused with syphilis, tuberculosis or hemophilic joint.

#### OSTEOSARCOMA

This tumor is rather slow growing, arises from the cortex, and is accompanied by extensive bone destruction. It is characterized by bone production, the amount varying inversely with the degree of malignancy. The more malignant the growth the less new bone it produces. The new bone production is in laminae perpendicular to the shaft, as in periosteal sarcoma. Bone production may be extensive. The growth extends into the soft tissues. The chief differential point between this growth and periosteal sarcoma is the extensive destruction of the shaft which occurs in osteosarcoma.

#### MEDULLARY SARCOMA

This is a very malignant tumor arising from the medulla and destroying the shaft. It does not contain new bone. A purely destructive process, it much resembles carcinoma from which it cannot be differentiated by means of the x-ray only. It is differentiated from myeloma by the regular out-

lines of the latter and the tendency of myelomata to extend along the shaft.

#### CARCINOMA

Carcinoma of bone is purely metastatic and is, therefore, always of medullary origin. It is most common in the middle third of the bone and involves most frequently the ribs, spine, pelvis, femur, and humerus. Metastases from carcinoma of the breast practically never occur in the bones of the forearm, leg, hand, or foot. There are two processes which occur in carcinomatous bone, osteoclasia and osteoplasia. The first is characterized by marked lacunar absorption with thickening of the bone, due to a calcification about the malignant process. Bone carcinoma is purely destructive and is accompanied by no new bone formation. It causes complete destruction of the cortex and invades the soft tissues. Pathological fractures are of common occurrence. The involved bone has a moth-eaten appearance, representing areas of bone destruction and replacement of tumor tissue. In the spine one or many of the vertebrae may be involved. Softening of the vertebral bodies leads to compression, with angulation and distortion of the vertebra. Metastases from prostatic carcinoma have a rather typical appearance. The bone is markedly mottled with areas of rarefaction and areas of great density. The rarefied areas seem to be walled off by a

process of condensation around them, due partly to a collection of malignant cells and partly to calcification. These metastases are most common in the pelvis and the lumbar vertebrae.

#### MYELOMA

Myeloma is a rare malignant tumor of bone marrow and is always multiple. It is commonest in the ribs and sternum, with the vertebrae, skull, femur, pelvis, and humerus, following in order. It is a destructive process, characterized by slow but extensive invasion of the medulla, absorption of the cortex with cortical perforation and multiple fractures. There is diffuse invasion of the soft tissues. The presence of Bence Jones' bodies in the urine is a somewhat characteristic feature of the disease.

### II. THE BENIGN TUMORS

#### GIANT CELL TUMOR

This tumor, also called giant cell sarcoma, or hemorrhagic osteomyelitis, is an essentially benign tumor, showing no tendency to form metastases and little tendency to local recurrence after removal. Its common location is in the ends of the long bones, most frequently in the lower end of the femur, the upper end of the tibia and the lower end of the radius, in the order named. These tumors also frequently occur in the mandible and may develop in any of the long bones.

The tumor is of medullary origin and grows rather slowly, expanding the bone rather than destroying it. There is no new bone formation unless fracture occurs. The tumor may be very large. It is regular in outline and is marked by the formation of the trabeculae. The cortex is thin but intact unless the tumor has become so large as to rupture through the cortex mechanically. Sometimes there is a periosteal reaction with new bone laid down in the cortex so that the cortex is maintained intact in spite of very great expansion. Bloodgood states that the bony cortex may be completely destroyed or may be perforated in several places without increase in the malignancy of the tumor. Spontaneous fracture frequently occurs. The joint is not involved although it may collapse from simple absorption. There is no tendency to invasion of the soft parts.

#### CYSTS

Bone cysts are benign growths of medullary origin, occurring in the ends of the long bones, most frequently in the humerus, femur, and tibia, in the order named. They are slow-growing tumors, purely destructive, and expand the bone. They never pierce the cortex and they do not cross an epiphyseal line. Cysts tend to grow by expanding up and down the medulla, giving the bone a characteristic spindle shape. No new bone is produced unless fracture, which is common, occurs. Cysts may be divided by trabeculae, but are usually

single large cavities. The walls are sharply defined. Cysts are commonly spoken of as being multiple, but they are usually seen in one bone only.

#### ENCHONDROMA

Enchondromata are of either medullary or cortical origin, are usually multiple and have sharply defined walls. The tumor is much less dense than the surrounding bone. They are often loculated. They are, as the name indicates, of cartilaginous structure. They occur near the epiphyses, but in the diaphyses of the bones. The epiphysis is never involved. They grow by expanding up and down the shaft, giving a spindle shape to the bone. Spontaneous fracture is common. The commonest location is the shaft of a phalanx. A single enchondroma cannot be distinguished from a bony cyst. The only differential point available is that enchondromata are usually multiple.

#### OSTEOMA

This is a bony tumor of cortical origin, purely productive in nature. They occur commonly at the shoulder and about the knee joint. The characteristic features are these: The tumor is composed of perfectly normal bone. It is usually perpendicular to the shaft. The bone is laid down evenly and the growth is sharply defined. The tumor is denser than the normal bone and the striae are differently arranged. They are frequently lobulated and often have a cauliflower appearance. Although they extend into the soft tissues there is no invasion. There is no bone destruction.

#### EXOSTOSES

Exostoses are somewhat similar, smaller, growths, usually seen as hook-shaped bony processes, invariably pointing away from the nearest joint. Sometimes they terminate in small osteochondroma. There is a rare hereditary form of multiple osteochondroma in which such a growth arises from the epiphyseal end of nearly every long bone.

#### OSSIFYING HEMATOMA

This condition is not a bone tumor, but may be mistaken for one. They are simply calcified clots following a traumatic or scorbutic subperiosteal hemorrhage. The new bone is laid down parallel to the shaft which is intact and which is usually seen through the shadow of the tumor mass. The growth is definitely limited by the periosteum.

The points brought out above are summarized as in the table presented with this paper.

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#### DISCUSSION

LLOYD BRYAN, M. D. (135 Stockton Street, San Francisco)—The ground is so well covered in this paper that there is little left for discussion. The only thing that I see to add is regarding the discussion of giant cell tumors. While as stated in the paper they com-

monly occur in the ends of long bones they may at times occur in flat bones. We have recently had the opportunity to see two cases within the past year, one of a typical roentgen picture of giant cell sarcoma in the ilium, and a second one in the wing of the sacrum.

Doctors Bowman and Goin have mentioned the fact that these giant cell tumors throw out new bony growth after a fracture which results in a healing process. This same new bony growth and healing can many times be produced by radiation therapy.

✱

HENRY SNURE, M.D. (1501 South Figueroa Street, Los Angeles)—Doctors Bowman and Goin have completely covered all the essential points in the x-ray diagnosis of bone tumors. About all that can be added are the rare types and locations of some of the tumors, such as the giant cell tumors mentioned by Doctor Bryan. I have recently x-rayed a case of giant cell tumor of a flat bone, namely, the sacrum, diagnosis verified by tissue section.

A year ago I had the opportunity of reviewing films of bone tumor in Doctor Keinbock's Clinic in Vienna. Doctor Keinbock has been collecting these cases for years, and I found that the cardinal points of Baetjer as outlined in this paper gave a correct diagnosis in all but a few cases (excepting, of course, tumors where there had been surgical intervention, fracture or tumors too extensive to determine point of origin). However, five cases that appeared to be typical benign bone cysts of femur by x-ray examination were shown by tissue section to be slow-growing metastatic carcinoma from the thyroid gland. Doctor Keinbock stated that 4 per cent of his cases of typical Paget's disease from x-ray viewpoint developed a metastasis of the periosteal sarcoma type. A few cases of dystrophy greatly resembled metastatic malignancy, but here again the law of ages was helpful in most cases.

✱

WILLIAM H. SARGENT, M.D. (2490 Channing Way, Berkeley)—Doctors Bowman's and Goin's excellent presentation of the roentgen differentiation of bone tumors is liable to give one the impression that it is rather simple to distinguish between the benign and the malignant. Unfortunately it is quite otherwise in a considerable percentage of the cases. All of us have felt the weight of responsibility as we have gazed at the x-ray film of a confusing or doubtful bone condition.

Some time ago we sent films of a case which was thought to be a giant cell tumor of the ischium to the Registry of Bone Sarcoma. The subsequent course was typical of malignancy. We also recently saw a case with erosion of the cortex and a slight amount of new bone formation which has been variously diagnosed for the last six months, and still no general agreement.

In other words, while the various points so clearly outlined by the writers are of very great assistance, in a certain percentage of the cases the x-ray is not conclusive. All sources of information, such as the history, clinical findings, and Wassermann, must be carefully considered with the roentgen findings. A biopsy should not be done unless with tourniquet in place and an immediate amputation follows if the gross appearance of the tissue suggests malignancy.

Until recently we have had no place to which we could turn for well-crystallized information regarding bone tumors, but with the Registry of Bone Sarcoma well organized and functioning, we should all now become better informed about these comparatively rare conditions.

Cooperation with the registry and general adoption of its classification and nomenclature is highly desirable.

## THE USE OF ALCOHOL AS A STANDARD GASTRIC TEST MEAL

By GARNETT CHENEY, M.D.

San Francisco

DISCUSSION by W. W. Boardman, M.D., San Francisco; V. R. Mason, M.D., Los Angeles; Elbridge J. Best, M.D., San Francisco.

**T**HIRTEEN years ago Ehrmann<sup>1</sup> tried the effects of alcohol on gastric secretion, and since that time several investigators have used an alcoholic meal in the study of gastric physiology. However, it has received no attention as a standard stimulus in fractional gastric analysis in this country, and very little abroad; the Ewald meal or cereal gruels usually being employed. Gross and microscopic examinations of stomach contents, fasting, and after various meals, are of recognized importance in the diagnosis of gastric disorders, but the marked variations in types of acid curves in health and the inaccuracy of the methods for their determination have caused some doubt as to the value of acidity estimations. As marked hyperacidity and complete absence of free HCl are fairly constant and characteristic findings in certain diseases affecting the stomach, fractional gastric analysis maintains a place as a procedure in thorough gastro-intestinal investigations. This seems to justify an endeavor to simplify the technique of administration of the meal and to minimize sources of error, where in hospital routine it is often necessary to have untrained nurses and medical students carry out the tests.

### TECHNIQUE

The technique which is used on clinical wards and on diagnostic group service is similar to that of any other test-meal. Early in the morning, after twelve hours' fasting, a Rehfuß tube is passed and all the stomach contents are removed. The meal, consisting of 100 cc. 7 per cent alcohol, is then injected into the stomach through the tube and samples are withdrawn at one-half hour intervals up to one and one-half hours after the meal. This length of time is considered sufficient, as Bell<sup>2</sup> found that maximum acidity was reached in one and one-half hours in all types of acid curves except a few high normals. There is no stoppage of the tube by bits of food, the specimens are clear, and small amounts of bile, blood or mucus are readily recognized. The microscopic examination of the sediment and tests for blood and lactic acid are readily carried out, and it is not necessary to filter the contents to read the acid determinations with Topfer's reagent and with phenolphthalein. There are no food particles by which one may gauge the rate of emptying of the stomach after the meal which might be considered an argument against the use of alcohol. However, gastric x-ray studies and Bloomfield and Keefer's<sup>3</sup> method for the continuous quantitative estimations of gastric secretion give really accurate information on this point and show the rate

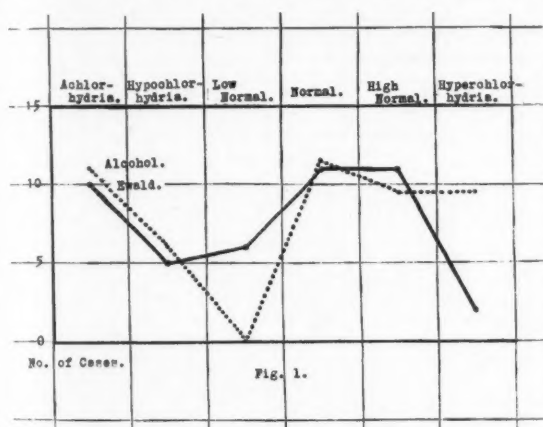
TABLE 1—Comparison of Gastric Acidity in Fifty Patients Receiving Both an Ewald and an Alcoholic Test-Meal

Meal	Achlor-hydris	Hypochlor-hydris	Low Normal	Normal	High Normal	Hyperchlor-hydris
Ewald	10	5	7	12	12	4
Alcohol	12	7	0	13	9	9

of emptying to be inconstant even in the same individual.

#### COMPARISON WITH OTHER METHODS

In suggesting the substitution of a new type of routine test-meal for others that have been widely used, comparisons must be carried out and analyzed. In a series of 150 fractional alcoholic test-meals in a miscellaneous group of cases ranging in age from 14 to 78 years requiring gastrointestinal investigations, fifty unselected patients received a second fractional analysis following the administration of an Ewald meal. This group received the two meals within a few days of each other and under the same conditions and the findings are presented in Table 1, and graphically in



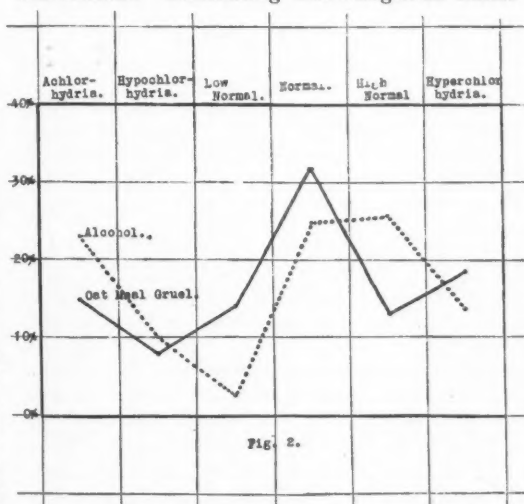
Graphic representation of findings in Table 1.

tions showed an increase of acid sufficient to place them in the second group above, and one in the third group above. Conversely fifteen alcoholic meal HCl titrations increased the acidity to one higher group, one to a group two higher, one to a group three higher, and one to a group four higher.

As it was thought that the slightly higher acid values obtained with the alcoholic meal might depend on the combination of free HCl with the cereal substance of the other meals a "laboratory test-meal" was prepared and samples titrated for acidity. Two glasses of water and two slices of toast well broken up were placed in a beaker. Twenty cc. of decinormal HCl was added at intervals while stirring the mixture, and it was not until after 80 cc. had been added that a positive reaction for free HCl could be obtained. Immediate titrations of gastric juice withdrawn one-half and one and one-half hours after an Ewald meal did not materially differ in acidity from titrations performed up to twenty-three hours after the meal.

#### INTERPRETATION OF TABLES

Table 2 shows a comparison of types of gastric HCl curves in the group of 150 patients receiving alcohol, and Kohiyar's<sup>4</sup> series of 1080 on similar subjects who received oatmeal gruel as a test-meal. Fig. 2 shows this graphically. Although the results appear somewhat dissimilar this is readily accounted for if one notes certain differences in the case groups studied. The 23 per cent achlorhydrias in the smaller series is close to the 26 per cent reported in 1500 cases by Bloomfield and Keefer.<sup>5</sup> Considering well-recognized causes



Graphic representation of findings in Table 2.

Fig. 1. The types of free acid curves have been divided into six groups according to the classification followed by Kohiyar.<sup>4</sup> The six groups are: (1) Complete achlorhydria. (2) Hypochlorhydria where the free HCl does not exceed 10 degrees. (3) Low normal where the free HCl is between 10 and 16 degrees. (4) Normal acidity where the free HCl is between 16 and 30 degrees. (5) High normal where the free acidity may reach 60 degrees. (6) Hyperchloridria where the free HCl rises above 60 degrees. This is an arbitrary division, but offers a fairly just basis for comparison between the two different types of meal. One must recognize that there is a considerable degree of variation in the acid curve in response to the same type of meal on successive occasions. Twenty-three double meals produced exactly the same types of curves. Five Ewald meal HCl titrations showed sufficient increase of acid over the comparable alcoholic meal titrations to place the curve in the group just above, while three titra-



TABLE 2—Comparison of Gastric Acidity in Response to Oatmeal Gruel and to Alcohol

	Achlor-hydrria	Hypochlor-hydrria	Low Normal	Normal	High Normal	Hyperchlor-hydrria
Oatmeal Gruel 1080 Cases	159=14.7%	86=8%	151=14%	340=31.5%	143=13.2%	201=18.6%
Alcohol 150 Cases	35=23%	16=10%	4=2.7%	37=24.7%	38=25.3%	20=13.3%

of achlorhydria, advanced cancer of the stomach, pernicious anemia, and combined sclerosis of the spinal cord, constitute 7.3 per cent of the smaller group, while the per cent of similar cases for the larger group is less than half this, or 3.6 per cent. Taking the three normal groups as one, the per cent for the small group is 52.7 and for the large, 58.7. The somewhat higher hyperchlorhydria figure is from a series including 14.9 per cent of peptic ulcers, while the incidence of ulcer in the 150 cases is 11.3 per cent.

In observing the free HCl acid values recorded in sixty-five alcoholic test-meals by the method of Bloomfield and Keefer where the meal consists of 50 cc. of 7 per cent alcohol and samples are withdrawn at 10-minute intervals, the maximum acid value was always reached within 60 minutes except in two cases in which 65-minute samples were recorded. The acidity in these two was but a few degrees higher than in the preceding specimens. In twenty cases of this group the patients also received the alcoholic test-meal of 100 cc. of 7 per cent alcohol, and in none of them did the height of the acid curve exceed that of the smaller meal. Indeed the smaller meal gave constantly higher acid values, undoubtedly due to less dilution of the gastric secretion. In accordance with these findings it is felt that a small meal with frequent extractions over a short period of time will give all the important information obtainable by any of the longer methods now in general use. The routine fractional gastric test-meal now adopted consists of 50 cc. of 7 per cent alcohol with removal of samples at the end of 15, 30, 45, and 60 minutes. The fasting contents are removed before the meal.

#### CONCLUSIONS

1. The use of alcohol as a meal in fractional gastric analysis is recommended.
2. The technique of obtaining and analyzing samples is simpler and the acid values are slightly more accurate than when a cereal meal is used.
3. The acid curves are quite comparable to those obtained with other types of gastric stimulants.
4. A meal of 50 cc. of 7 per cent alcohol followed by withdrawal of four samples at subsequent 15-minute intervals will give as adequate information as may be obtained by a longer procedure.

Stanford University Medical School.

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#### DISCUSSION

W. W. BOARDMAN, M. D. (350 Post Street, San Francisco)—Doctor Cheney has called attention to a procedure that greatly simplifies the clinical study of the secretory activity of the stomach. This is an essential part of every careful study of gastric function, but we are not so concerned with the actual percentage of acid found as we are with the general type of reaction of the gastric mucosa to a given stimulus.

The fractional meal has proven itself more reliable than the old Ewald meal, but especially in office work it introduced various difficulties, such as the administration of the meal after extracting the fasting content, and the fairly frequent obstruction of the tube by particles of the meal, etc.

Because of these difficulties I have utilized a meal of 50 cc. of 7 per cent alcohol with three extracts at 20-minute intervals during the past two years, and can therefore confirm Doctor Cheney's conclusion that the alcohol acts as a satisfactory stimulant to gastric secretion and that its use simplifies the procedure of gastric analysis.

✱

V. R. MASON, M. D. (838 Pacific Mutual Building, Los Angeles)—During the past years we have seen the development of standard gastric test-meals, motility meals, so-called "normal" meals and secretory meals and, after a prodigious amount of work, many observers concluded that these procedures, while giving necessary information in certain instances, added little or no useful data in other cases and at times led to error. But the analysis of gastric contents is a necessary part of many gastro-intestinal studies. For this purpose the "meal" advocated by Doctor Cheney has the advantage of simplicity and freedom from technical difficulties. It also has the advantage of production of stimulation of the gastric mucosa to secretion which is essential to the interpretation of the information obtained.

✱

ELBRIDGE J. BEST, M. D. (384 Post Street, San Francisco)—In view of the fact that much valuable information can be learned from a study of the gastric chemistry and secretion, any method that simplifies the process of obtaining this information is most welcome to the investigator. Doctor Cheney is most timely in offering a technique that will appeal to the busy workers.

Since the adoption of the "fractional" gastric analysis in place of the old, single test of 1914 many curves have been plotted by workers in widely separated medical centers. Out of this mass of material we have come to recognize certain curves that give real information. We have also definitely learned that the actual percentage of acid means very little.

To be readily accepted by the medical public the curves from a new test must be properly compared with those from the old test. The various old test-meals give similarly shaped curves although the acid value differs in detail. If one uses the same patient, giving the same test-meal as, for instance the Ewald meal, he will find curves representing different concentrations but of the same shape. Doctor Cheney finds this also true when using his alcohol meal. Consequently his comparison of the alcohol meal with



the Ewald meal by Kohiyar's group of curves, which depends upon acid concentrations, is not justifiable.

I doubt if we will ever find a test that will allow us to draw any conclusions from the actual acid figures. Therefore to accept Kohiyar's hyperacid curve as that with HCl over sixty will only lead to confusion. I need only call attention to normal curves found by Rehfuess, some of his figures being over one hundred. Because of so many variables our interpretation of gastric content findings can only be on the basis of relativity.

There being so much information to be found in the second hour curve, which seems of more value to me than the first hour, I cannot agree at present with the author in discontinuing the test at sixty minutes. We should know if the curve ascends, remains on the same level or descends.

Confusion in medicine has come from different workers using different tests but making no fair comparisons with existing findings. This can be corrected by proper correlation under the same controls. Many gastro-enterologists having felt gastric analysis to be unreliable, have discarded the test. Lockwood, in 1923, tried to show, by an ingenious tube of three tips each in a different part of the stomach, that the acid figures varied to such an extent in the different parts of the stomach as to make the analysis unreliable. A review of his figures plotted in curves shows all curves to be of the same shape, thus strengthening the contention that gastric analysis properly studied can be of great value.

I feel we need several carefully plotted curves from the same person using food and alcohol meals for comparison. With such material from many people we will be able to interpret the findings of this new and simpler test in terms of what we already know of the stomach secretion through the older and accepted test-meals.

### THE ASSOCIATION OF SUSCEPTIBILITY TO SCARLET FEVER AND ACUTE TONSILLITIS\*

By ARTHUR L. BLOOMFIELD, M.D.  
San Francisco

DISCUSSION by Karl F. Meyer, Ph.D., San Francisco; Edwin William Schultz, M.D., San Francisco; R. W. Burlingame, M.D., San Francisco.

**F**OLLOWING the work of Dochez, Avery, and Lancefield,<sup>1</sup> who in 1919 developed practical methods for the biological classification of hemolytic streptococci, and who showed that these cocci could be separated into groups which were immunologically distinct, there has been an active revival of interest in the triad of hemolytic streptococcus diseases, namely, scarlet fever, acute follicular tonsillitis, and erysipelas.

The question of the rôle of streptococcus as the cause of scarlet fever, practically abandoned for many years, was promptly revived largely through the work of Bliss,<sup>2</sup> of Gordon,<sup>3</sup> and of Tunnicliffe,<sup>4</sup> who showed that from the throats of scarlatina patients there could be recovered with great regularity hemolytic streptococci immunologically closely related or identical with one another, and different from the streptococci found in tonsillitis and in pyogenic infections. The final proof was soon brought by Dick and Dick<sup>5</sup> through the experimental production of scarlet fever in volunteers by swabbing the throat with cultures of streptococci derived from previous cases. Bloom-

field and Felty<sup>6</sup> in the course of an investigation of acute tonsillitis found that this disease, which previously had been generally regarded as a non-specific infection due to pyogenic cocci, pneumococci, or other organisms,<sup>7</sup> was also invariably caused by beta hemolytic streptococci. The evidence which led to this conclusion was the demonstration of the invariable presence of the streptococci in tremendous numbers in cultures made from the tonsils during the acute stages of the disease, and the observation that carriage of the organism in the tonsil was associated with resistance to reinfection which subsided when the carrier state ceased. It was not possible, however, to show that the "tonsillitis streptococci" fell into a sharply defined immunological group, although they differed from the scarlatinal strains. The streptococci of erysipelas, finally, have been studied by Birkhaug<sup>8</sup> and by Stevens and Dochez,<sup>9</sup> who find a close biological relationship between various strains. The entire subject has recently been reviewed by Stevens and Dochez,<sup>10</sup> and their work indicates a lack of complete specificity of the antigenic qualities of erysipelas and scarlatinal strains. In other words, while the scarlatinal strains are intimately related among themselves; as are the erysipelas strains, there are less close but still definite antigenic relationships between the scarlatinal, erysipelas, and pyogenic groups.

However, the main recent trend in the study of hemolytic streptococcus infection, stimulated by the practical objective of specific immunotherapy, has been along the lines of differentiation; and despite the obvious similarities of the organisms involved no particular attempts have been made to search for any common factors of susceptibility or resistance to scarlet fever, tonsillitis, and erysipelas.

The object of the present paper is to show that such common factors do exist at least with regard to susceptibility to tonsillitis and to scarlet fever.

#### CLINICAL SIMILARITIES IN SCARLET FEVER, ERYSIPELAS, AND TONSILLITIS

If one considers the clinical phenomena of scarlet fever, erysipelas, and tonsillitis, many points of fundamental similarity are found to exist, and they may be noted by way of introduction to the question of susceptibility.

1. The *incubation period* is of similar duration. The most accurate data on this point are from the experimental inoculations by Dick and Dick.<sup>5, 11</sup> Following swabbing of the tonsils of volunteers with cultures of scarlatinal streptococci, symptoms began after approximately two days. Similarly tonsillitis occurred after an incubation period of thirty to seventy-two hours in a long series of volunteers into whose throats material containing hemolytic streptococci was introduced,<sup>12</sup> and in the case of epidemics of septic sore throat it has been observed that patients begin to fall ill within

\* Read before the San Francisco County Medical Society, May 12, 1927.

forty-eight hours after probable infection of the milk supply.<sup>13</sup> Clinical observations of erysipelas suggest that a similar incubation period is frequent in this disease.

2. *The mode of onset* is characteristically abrupt in the entire group if the disease is at all severe. This fact is well known in the case of scarlet fever and erysipelas, but holds true equally well in acute follicular tonsillitis as pointed out by Felty and Hodges.<sup>7</sup> So, too, termination of fever and constitutional symptoms is frequently by "crisis" which occurred five times as often as gradual subsidence in Felty and Hodges' series.

3. The general character of the *fever and pulse curves* and the presence of outspoken *polymorphonuclear leukocytosis* are common to the three conditions.

4. *The complications* of all are similar, namely, local and metastatic suppurations or generalized infection, and nephritis.

5. *Two or more of the triad may occasionally be produced presumably by the same streptococcus.* Final proof of such occurrences must rest on biological tests of the organisms, but the clinical evidence is strong. For example, during the course of the influenza epidemic in 1918-19 we saw several instances of streptococcus empyema in which after thoracotomy, erysipelas started from the wound. In an epidemic of septic sore throat, erysipelas occurred as a complication in twenty of 487 cases.<sup>13</sup>

The development of typical scarlatinaform rashes during the course of streptococcus infections of all sorts (wound scarlet fever) is well known. The following case is of especial interest:

A young woman of twenty-six years developed on February 7, 1921, what appeared to be a primary otitis media. Both drums bulged, and they were punctured, with discharge of thin pus which yielded hemolytic streptococci. Several days later the patient complained of sore throat. The pharynx was intensely injected and the tonsils were inflamed and swollen, with patches of exudate at the mouths of the crypts. Evidences of infection of the right antrum followed, and several days later (about two weeks after the onset of the otitis) there appeared an intense scarlatinal rash which had all the appearances and the typical distribution of the exanthem of a severe case of scarlet fever.

After three days, when the rash was fading, the left ear, which was still draining, became swollen and from this, as a point of origin, a classical erysipelas spread over the entire face. At this point the patient was brought into the hospital. She thereupon developed a bilateral femoral thrombophlebitis and finally recovered after an illness of two months' duration.

Throughout the entire course the patient was under strict isolation and the precautions were carefully observed by the attendants. It appears probable, therefore, that in this instance a single strain of streptococcus produced successively, otitis, tonsillitis, scarlet fever, erysipelas, and thrombophlebitis, unless one makes the assumption that there were invasions by three or more different types of hemolytic streptococci.

6. Finally, the undoubted similarity of *seasonal incidence* of scarlet fever and tonsillitis may be pointed out. Chart I shows the curves of

incidence drawn on a comparable scale,<sup>14</sup> of scarlet fever as reported to the Board of Health of Baltimore, and of tonsillitis observed in a carefully controlled group of young adults. The curves to all intents and purposes coincide.

Despite these obvious similarities in the clinical phenomena of various hemolytic streptococcus infections, the entire trend of recent work has been, as we pointed out above, to draw sharp immunological distinctions and to stress differences rather than common factors. It seems of interest, therefore, to point out the following associations of susceptibility to scarlet fever and acute tonsillitis. During

the course of an investigation of acute tonsillitis it was found<sup>6</sup> that in the community under study there were a certain number of people who possessed a high degree of resistance to hemolytic streptococcus infection of the lymphadenoid tissue of the throat, and that such resistance could not be ascribed to immunity resulting from a previous infection. In brief, in a group of sixty-three young adults, twenty-nine gave no history of having had tonsillitis in the past, whereas thirty-four had had the disease one or more times. Of the former who, from the standpoint of history one might regard as less susceptible to the infection, five, or 17 per cent, developed tonsillitis during a period of observation of six months; of the latter twenty-one, or 62 per cent. Inasmuch as these

CHART I—Seasonal Incidence of Scarlatina and Tonsillitis

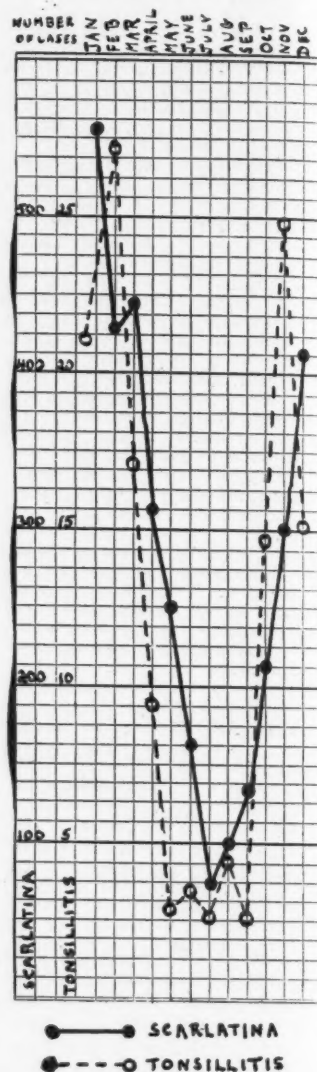


TABLE 1—Association of Scarlet Fever and Tonsillitis (in Total of 498 Persons)

Tonsillitis Positive 298		Tonsillitis Negative 200		Scarlatina Positive 92		Scarlatina Negative 406	
Scar. +	Scar. —	Scar. +	Scar. —	Tons. +	Tons. —	Tons. +	Tons. —
78 (26.2%)	220	14 (7%)	186	78 (84.9%)	14	220 (54.1%)	186

striking differences could not be related to any external factors of environment, exposure, carrier state or anatomical peculiarities of the lymphadenoid tissue, it was concluded that the former group were "naturally" less susceptible than the latter.

A STUDY OF RESISTANCE IN A SELECTED GROUP

If this assumption was correct, namely, that certain people were inherently resistant to one type of streptococcus infection (acute tonsillitis) the question arose as to whether these same individuals were also resistant to another type of streptococcus infection (scarlatina) caused by similar but serologically different organisms. Therefore, 498 people were carefully questioned as to previous history of tonsillitis and scarlet fever. The subjects were physicians, medical students, and trained nurses—a group highly satisfactory from the standpoint of obtaining accurate historical information. A few questionnaires which were doubtful were discarded, and we believe the data to be reasonably accurate.

The results are shown in Table 1.

It appears, therefore, that history of scarlet fever is much more frequent in people who have had tonsillitis and who are therefore presumably susceptible to hemolytic streptococcus infection than in those who have not had tonsillitis and who are therefore presumably more resistant.

The possibility immediately comes up that the association may be due largely to the fact that both are tonsillar infections; in other words, local anatomical conditions may favor infection quite apart from any specific relationship. Therefore, 267 members of the group were questioned as to history of diphtheria (another tonsillar infection) as well as to history of scarlatina and tonsillitis.

The figures in Table 2 were forthcoming on this point.

A study of Tables 1 and 2 shows no clear association between occurrence of tonsillitis and diphtheria, or scarlet fever and diphtheria such as holds with scarlet fever and tonsillitis.

MATHEMATICAL INTERPRETATION OF TABLES 1 AND 2

Dr. Raymond Pearl kindly subjected these figures to mathematical analysis and made the following note:

$P_t$  = probability of tonsillitis;  $P_s$  = probability of scarlet, etc.

$P_t = \frac{298}{498} = .5984$  = probability of tonsillitis in this material.

$P_s = \frac{92}{498} = .1847$  = probability of scarlet fever in this material.

$P_{ts} = .5984 \times .1847$  = probability of both scarlet fever and tonsillitis.

Expected cases =  $498 \times .1105 = 55.0 \pm 4.7$

Actual cases =

Difference =  $\frac{78}{23.0 \pm 4.7 \text{ or } 4.9 \times P. E.}$

\* \* \*

$P_{dt} = \frac{143}{267} = .5356$  = probability of tonsillitis in this material.

$P_d = \frac{30}{267} = .1124$  = probability of diphtheria in this material.

$P_{td} = .5356 \times .1124 = .06020$  = probability of both tonsillitis and diphtheria.

Expected cases =  $267 \times .06020 = 16.1 \pm 2.6$

Actual cases =

Difference =  $\frac{20}{3.9 \pm 2.6 \text{ or } 1.5 \times P. E.}$

If, as is probably quite justifiable, we take in this case the probability of the occurrence of tonsillitis in this material as that given by the long series instead of that from the short series [ $P_t$  instead of  $P_{dt}$ ] the case then becomes:

Expected cases of both tonsillitis and diphtheria = 18

Actual cases = 20

Difference = 2

This is an even smaller difference than that arising if the probabilities are based on the short series only.

$P'_s = \frac{46}{267} = .1723$  = probability of scarlet fever in this material.

$P_d = \frac{30}{267} = .1124$  = probability of diphtheria in this material.

$P_{sd} = .1723 \times .1124 = .01937$  = probability of both scarlet fever and diphtheria.

Expected cases =  $267 \times .01937 = 5.2 \pm 1.6$

Actual cases =

Difference =  $\frac{9}{3.8 \pm 1.6 \text{ or } 2.3 \times P. E.}$

TABLE 2—Association of Scarlet Fever, Tonsillitis, and Diphtheria (in Total of 267 Persons)

Tonsillitis Positive 143		Tonsillitis Negative 124		Scarlatina Positive 46		Scarlatina Negative 221	
Diph. +	Diph. —	Diph. +	Diph. —	Diph. +	Diph. —	Diph. +	Diph. —
20 (14.1%)	123	10 (8%)	104	9 (19.3%)	37	21 (9.4%)	200



Again taking the probability of scarlet fever from the longer series, we have:

Expected cases of both scarlet fever and diphtheria	= 5.6
Actual cases	= 9.
Difference	= 3.4

\* \* \*

"Conclusion: There is a significant positive association between tonsillitis and scarlet fever, but no significant association is shown between tonsillitis and diphtheria or between scarlet fever and diphtheria."

This analysis shows that the association of scarlet fever and diphtheria, and of tonsillitis and diphtheria is so close to the figures expected on the law of probability alone that no conclusion as to relationship could be drawn. On the other hand, the association of scarlet fever and tonsillitis in the same person is so much more frequent than the expected figure that a significant relationship between the two diseases cannot be escaped. The difference of 4.9 times the probable error in this group means that the chances of purely accidental (non-significant) association are less than 1 to 1000, a negligible figure.

#### COMMENT

It has been shown that there is a significant positive association between susceptibility to scarlet fever and to tonsillitis despite the fact that the streptococci concerned are serologically distinct; and there are clearly common factors which govern invasion of the lymphadenoid tissue of the throat by all of these organisms. If this is true, one is immediately confronted by the puzzling fact that, whereas scarlet fever is notably a disease which does not affect the same person more than once, acute tonsillitis *par excellence* recurs time after time. No final explanation of this apparent contradiction is at hand, but certain possibilities suggest themselves. It has been shown by various workers<sup>10</sup> that the *Str. scarlatinae* produces a soluble toxin in culture, that this toxin is associated with the occurrence of the rash and that the rash can be neutralized by convalescent or artificially produced immune sera. It is equally clear that this rash-producing substance does not represent the entire activity of the organism and also that immune sera which neutralize the rash do not obliterate the tonsillar infection or all the other evidences of scarlet fever.<sup>10</sup> In brief, the rash is the only clinical feature which enables one to distinguish between scarlet fever and streptococcal tonsillitis, and either entity may occur in mild or severe form (mild scarlatina, ordinary acute tonsillitis—malignant scarlet fever, septic sore throat). The question may be raised, therefore, as to whether, during an attack of scarlet fever, the individual becomes immune to the rash-producing "toxin" of *Str. scarlatinae* but remains susceptible to subsequent infection with the same organism, which would consequently manifest itself only by sore throat clinically indistinguishable from simple tonsillitis. If this is true, the facts would be in accord with the general rela-

tions between susceptibility to scarlatina and tonsillitis, which were pointed out above.

The question is capable of proof by inoculation of the throats of volunteers who have had scarlet fever with strains of known scarlatinal streptococci. If these individuals are immune to the rash-producing substance but not to the other activities of the organism, one would expect tonsillitis without rash to result if any disease at all was produced. Unfortunately in the inoculation experiments of Dick and Dick, the crucial point of whether there was a past history of scarlet fever is not noted. None the less their observations are of interest in this connection. Thirty volunteers were subjected<sup>11</sup> to throat swabbing with eighteen strains of hemolytic streptococci isolated from the throats of typical cases of scarlet fever during the early stages of the disease. Of these thirty experiments twenty-three were entirely negative, but seven of the volunteers developed tonsillitis with fever and leukocytosis but *without rash*. Later Dick and Dick<sup>8</sup> inoculated in a similar manner five volunteers with a culture from a case of scarlet fever. Three of the experiments were negative; of the two other volunteers one developed typical scarlet fever with characteristic rash, and the other developed a tonsillitis with fever of five days' duration but *no rash*. Here again there are unfortunately no data as to previous history of scarlet fever. Even more suggestive are the recent observations of Stevens and Dochez,<sup>17</sup> who in studying the streptococci isolated from cases of sore throat without rash which occurred in connection with an outbreak of scarlet fever, found that these strains in certain instances were capable of producing toxin which was neutralized by scarlatinal antitoxin and were agglutinated by scarlatinal immune sera. Although no data as to clinical history of scarlet fever are set down, all the cases of angina without rash from which scarlatinal streptococci were isolated had negative Dick tests, *i. e.*, were immune to scarlatinal toxin. Stevens and Dochez have therefore shown that people who are immune to the "scarlatinal toxin" as evidenced by the skin test are none the less susceptible to infection by *Str. scarlatinae*, but that in this case there develops a tonsillitis without rash.

Rosenow<sup>18</sup> observed five instances of severe streptococcal angina without rash, all of which, according to a specific precipitin test, were due to scarlatinal streptococci. In every case the Dick test was negative, and two of these people gave a history of previous attacks of scarlet fever. Rosenow concludes that the supposed immunity following an attack of scarlet fever may really be an immunity of the skin to the rash-producing toxin without protection against subsequent invasion by scarlatinal streptococci of other tissues such as the tonsils, and in support of this view he refers to attacks of high fever, sore throat and otitis media, without rash, but due to scarlatinal streptococci occurring in several children within a month after typical attacks of scarlet fever.

The recent observations of Nicholls<sup>19</sup> are along the same lines. The whole matter is complicated by the fact that clinically the rash is of variable

intensity even in first attacks of scarlet fever, and that the degree of toxin production by scarlatinal streptococci is also variable.

The studies of Blake and Trask<sup>20</sup> are of importance in this connection. They showed that the amount of "toxin" present in the blood (determined by skin tests of non-immunes with serum from scarlatina patients) did not run parallel with the clinical severity of the disease. A case classified as extreme, for example, had only one-fourth of a skin-test dose of toxin per cubic centimeter of serum, whereas a mild case had 120 such units per cubic centimeter. On the other hand, as one might expect, the degree of "toxemia" bore a distinct relationship to the presence of the rash.

In the light of these observations it becomes clear that the only proven specific activities of scarlatinal streptococci are the production of the scarlatinal "toxin" and the associated rash. Conversely it has not been shown that specific scarlatinal antitoxin has any action beyond neutralizing the toxin and eradicating the rash or preventing its appearance. The question of resistance to invasion by hemolytic streptococci and resistance to activities of these organisms other than those related to toxin production seems to require separate consideration. The observations herewith presented indicate, at any rate, that invasion of the lymphadenoid tissues of the throat by scarlatinal, as well as other hemolytic streptococci, depends on some common factor of susceptibility.

#### CONCLUSIONS

1. Certain people possess a "natural" or at least unexplained resistance to hemolytic streptococcal infection of the lymphadenoid tissues of the throat.
2. There is a significant positive association between susceptibility to two types of infection of this sort—acute follicular tonsillitis, and scarlet fever.
3. There is no significant association between susceptibility to tonsillitis and diphtheria or to scarlet fever and diphtheria.
4. The implications of this observation in relation to epidemiological data are discussed.

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#### DISCUSSION

KARL F. MEYER, Ph.D. (Hooper Foundation for Medical Research, San Francisco)—It is indeed a privilege to be asked to discuss the valuable paper of Doctor Bloomfield. No one is better qualified to unravel the many perplexing features of scarlet fever and tonsillitis than the author of the paper. Since I am fully in accord with the conclusions presented, I have very little to add. I wish to express my appreciation for the many suggestions and stimulations I derived from reading the fascinating studies and reports which Doctor Bloomfield and his associates made a few years ago on the epidemiology and bacteriology of acute tonsillitis, formerly considered a disease from within and due to a variety of bacteria. It is now proved beyond a doubt that acute tonsillitis is a streptococcal infection contracted by those endowed with a peculiar innate susceptibility. Tonsillectomy or vaccination confer a considerable degree of protection. Massive infections, usually milk-borne, may cause a very severe disease known as septic sore throat. As far as bacteriological studies have progressed, the beta hemolytic streptococci isolated from the cases do not differ from those found in acute tonsillitis or from those of scarlet fever. In order to protect the milk supply from human beta hemolytic streptococci it is naturally advisable to determine the carrier incidence among the employees of the dairies. It has been suggested that they be immunized against the scarlet fever toxin. Since I was familiar with the studies conducted by Doctors Bloomfield and Felty I advocated tonsillectomy or, instead of protection against the rash-producing toxin, repeated vaccination with a polyvalent beta hemolytic streptococcal vaccine. This procedure will be tried out in the very near future. A subject which deserves further study is the periodic recurrence of seasonal tonsillitis with a marked tendency to otitis media.

✽

EDWIN WILLIAM SCHULTZ, M.D. (Stanford University)—There is really nothing I can add to Doctor Bloomfield's stimulating and valuable paper. We no longer entertain any doubt as to the specific relationship of streptococci to acute tonsillitis; and the etiologic relationship of streptococci to scarlet fever seems well established. It is also known that, quite apart from a history of previous infection, individuals may differ in their resistance to given infectious diseases. Although we know that these individual differences may be determined by a variety of factors, they are probably determined in part by inherent differences in the germ plasma and are therefore a matter of inheritance. We are indebted to Doctor Bloomfield for calling our attention to the remarkably close correlation of individual susceptibility to acute tonsillitis and to scarlet fever. It is not at all improbable that individual susceptibility to streptococcus infection is in a measure at least traceable to cellular differences which the individual owes to his parents. Such individuals might conceivably recover from a streptococcus infection with a well-defined immunity to the toxins of the organism, but with an essentially unchanged resistance to the organism itself. It is recognized that an antitoxic immunity may exist quite independently of



an immunity directed toward the elimination of the organism. We know, moreover, that an antitoxic immunity, once established, is a dependable immunity of long duration. This is often not the case in an immunity in which the resistance rests on a disposal of the organism. Indeed one cannot be too careful in evaluating the degree of protection afforded by antibacterial immunization.

R. W. BURLINGAME, M.D. (Isolation Hospital, San Francisco)—Doctor Bloomfield's worthy paper has been the means of crystallizing at least three ideas in my mind:

1. That many cases of tonsillitis are caused by the streptococcus scarlatinae in individuals who have enough antitoxin in the blood stream (natural or acquired) to block the symptoms caused by the toxin generated by this streptococcus; that the scarlatina streptococcus has at least two distinct actions is very patent to one who has used in a series of cases the antitoxin in the treatment of scarlet fever. Within a few hours after the administration of antitoxin, especially intravenously, the temperature drops to normal and the rash fades. But the sore throat remains and later the various complications as otitis, adenitis, and even septicemia may occur because of the fact that the antitoxin is not bactericidal in its action. We have here an analogy with diphtheria antitoxin in which the constitutional symptoms are relieved by neutralization of the toxin, but in which the carrier state may persist for months. However, the diphtheria bacillus is not so great an irritant to tissue as the streptococcus. But I have seen children with an excoriating nasal discharge from which a pure culture of Klebs-Loeffler bacillus was obtained, who had a negative Schick, and who, as may be expected, were not relieved by antitoxin. In these cases the inflammation clears only on application of local antiseptics.

2. That we may expect to see scarlet fever recur in the same individual as the use of scarlet fever antitoxin becomes more general. Just as in diphtheria, the antitoxin is administered early in the disease and, therefore, the toxin is neutralized before it has had time to stimulate an active immunity. The passive immunity thus furnished by the antitoxin passes away in a few weeks and leaves the patient as susceptible to the toxin as before.

3. That from an epidemiological standpoint a rapid, simple method of taking, transporting, and growing the streptococcus scarlatinae should be worked out. In this way negative cultures may be the criterion for the discharge from quarantine, rather than the uncertain time limit imposed by health authorities.

### CANCER OF THE UTERUS\*

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DISCUSSION by Emil G. Beck, M.D., Chicago; Thomas O. Burger, M.D., San Diego.

SOME twenty years ago a woman with a lump in her breast, through fear and suspicion of its nature, concealed it from her family until it had grown to alarming proportions. Her husband was manager of a great corporation. That is mentioned because it was indicative of possession in the family, of more than average ability and intelligence. He asked what surgery offered and was told he could expect about a fifty-fifty chance for a five-year cure. That was an overgenerous prognosis, but he decided a 50 per cent chance for only five years more of life was not attractive, so he consulted a friend who was president of a bank. Here also one would presuppose a fairly good intelligence quotient, but the financier

propounded this moronic gem: "If you want corn to grow well you hoe it, don't you? Well that is what the surgeon will do with the cancer when he operates upon it." So the corporation manager took his wife to an irregular cancer cure institution where he was shown through a sort of museum of cancers. It was pointed out that they looked like crabs with many legs, and that in fact the word "carcinoma" was derived from the Greek word meaning crab. The showing was impressive and the promises for cure satisfactory. So the corrosive material was applied, and the woman was tortured with a suppurating sore that covered the whole front of her chest until she died a year later.

It must be acknowledged that the entire series of events just narrated could all happen today, for we still have nothing to offer for the permanent cure of cancer.

People are psychologically deaf to unpleasant truths, the promises of the quacks are alluring and in the presence of the impending cancer calamity the afflicted grasp at straws.

The history of the patient just referred to illustrates the whole adverse psychology in the cancer treatment situation, from the standpoints of both physician and patient. If the physician tells the truth he makes a poor showing; if he does not, he places himself in the class with the fakers.

### EDUCATIONAL CAMPAIGN AGAINST CANCER

Writers on the cancer problem are always urging educational campaigns designed to get the patient to the surgeon early, the teaching being that the neoplasm is local in the beginning and can then be removed *in toto*. But are we sure of that? I am not arguing against the effort to aid these patients early; in fact that is our only hope today. But I am pointing out what a weak hope it is. Perhaps cancer is not a local disease in the beginning, or if it is it may be the response of a constitutional tendency only waiting for an adequate irritation to start its further development. We have all had patients whom we thought came to us early enough to warrant great expectations from surgery, only to be disappointed. Here are some examples:

CASE 1—A patient had a small fibroid nodule high up in the uterine cavity and beside it a tiny spot from which positive sections were made. The rest of the uterus was examined carefully; many sections were made, but the one small spot was all that was found. It was adenocarcinoma of the body of the uterus, universally conceded the most amenable to surgical treatment, but this patient died with massive pelvic recurrence within eight months after the operation.

CASE 2—I excised quite widely two lumps smaller than peas, not in the gland but just under the skin at the periphery of a breast. The pathologist reported malignancy. A radical dissection of breast and axilla was promptly done. The patient died six years later of extensive skeletal cancer, pelvic bones, spine and skull being involved.

CASE 3—In further contrast another patient with cancer of the uterine body lived six years after hysterectomy without recurrence, and died of apoplexy.

An explanation of this difference in behavior is Broder's discovery that the extent of differentiation of cells in any neoplasm determines its viru-

\* Read before the Alameda County Medical Association, September 19, 1927.

lence. Broder states that "a number of carcinomas, by the process of differentiation, put the brakes on themselves, so to speak"; and that, "a carcinoma whose cells increase by geometrical progression without differentiation beyond the point of reproduction, would grow faster and be more malignant than one that caused a number of its cells to differentiate beyond the point of reproduction." So Broder's Group 1, with 100 to 75 per cent differentiation or self-control, shows excellent results with operation; while his Group 4, with little or no differentiation, shows an almost hopeless degree of malignancy no matter how treated or when.

#### ACCEPTED FACTS CONCERNING CANCER

The fact we think we know best about cancer is that a preexisting long-continued irritant lesion is necessary, and that the neoplasm begins at such a point. We do not know why the same lesion will start trouble in one individual and not in another.

If cancer is a local disease due to a wearing down of cell energy through long-continued efforts to replace tissues destroyed by the irritant, then it would seem that surgery and all other present methods of extirpation have about reached their limit and the future is hopeless. On the other hand if cancer is a systemic disease, infectious perhaps, there are strong hopes for the discovery of an efficient remedy.

While Broder's cell differentiation theory of the grades of malignancy is useful for prognosis, it gives as yet no clues for improvement in treatment. The members of all four groups listed by him die eventually. If the agency which causes the cells to differentiate can be found and harnessed and made to work 100 per cent, the resulting complete differentiation beyond ability to reproduce would mean cure.

While it is desirable for the lessening of technical difficulties to continue the propaganda of education so that patients will apply early for surgical extirpation, I have little faith that it will improve the situation much.

#### THE FIELD OF THE PRECANCEROUS STAGE

A more promising field now neglected lies in the precancerous stage during which the surgeon should be persuaded to operate. Pick and Hansmann deny that there is a recognizable precancerous stage. Granting that, we still have some facts to guide us in the handling of certain lesions.

We know the danger for the future in gastric ulcer. Moynihan and many others treat ulcers by partial gastrectomy to eliminate the danger of later carcinoma.

Erosions of the cervix and cervical polyps in the cancer age are portents of evil and should be treated surgically. They cannot be cured by office applications of iodine and silver salts. An intractable cervical discharge as the menopause approaches is not too radically treated by hysterectomy. Crile advises and practices it. Such a discharge is an unmistakable sign of irritation in a most vulnerable spot. But we can follow the physician back much further in educating him in cervix cancer prevention. There is less to be

gained I believe in scolding the public for its fear of the knife than there is in persuading the obstetrician to make immediate cervical repairs, and the surgical gynecologist to treat vigorously all cervical erosions and cystic degenerations.

Immediate repair of the lacerated cervix is difficult because the parts are obscured by blood and because of their distortion after delivery. If accurate coaptation cannot be made it is better to adopt Hirst's plan of doing the repair a week after delivery. In any event the repair surgery must be done very carefully or the result may be as dangerous as no repair at all. Scar tissue as such in the cervix probably does not predispose to cancer. If, however, the scar is badly made it may have the effect of sealing up gland ducts and converting them into cysts just as an erosion does. An erosion is cervical mucous membrane everted into the vagina by a laceration, and when all or some portion of it is healed over by the extension of squamous epithelium, cervical gland ducts are closed and cysts form. This condition is generally believed to be a more dangerous irritant than scar tissue. Hence erosions should be treated surgically and the whole gland-bearing area gotten rid of. The Sturmdorf operation well performed will do this, and so will cauterization.

Of course with the sorry means at hand to cope with cancer of the uterus, the earlier that destruction of the macroscopic growth is accomplished the better. The hope is that each case belongs to Group 1 and not that, being a local disease we may remove it in its entirety and thus effect a permanent cure. Even if it is a strictly local lesion we discover it in that stage only by chance. If the patient seeks advice when the first symptoms appear the carcinoma is still advanced almost beyond hope, because bleeding is the first symptom and bleeding means ulceration.

#### CANCER OF THE CERVIX

The surgical treatment of cancer of the cervix probably reached its highest point of efficiency and popularity about the year 1913, when Wertheim reported 46 per cent of five-year cures by his method of total hysterectomy with wide dissection of the parametrium. His operation involved isolation of the ureters, the tying of the uterine arteries as far from the uterus as possible, and the removal of as much of the infiltrated parametrial tissue as possible.

This treatment of the ureters was followed by a serious cystitis in many patients, and the operative mortality was 15 to 20 per cent. It must be remembered that only about half the patients presenting themselves at the Vienna clinic were considered operable, so the 46 per cent of five-year cures represented the results in selected cases.

Some recent statistics run as follows: Of 4982 cases from German and American clinics, 1989 or 39.9 per cent were considered operable, and 1692 were actually operated upon. Three hundred and thirteen succumbed to the operation, making an operative mortality of 18.5 per cent. Of the 1379 surviving patients 317, or 23 per cent, were alive five years later. This leaves only 6.4 per cent five-year cures out of the whole number of 4982

patients who presented themselves for treatment. There were eliminated at once 78 per cent of the total number, composed of 60 per cent inoperable and 18 per cent who died from the operation. This is a very poor showing for surgery. Decisions as to operability rest somewhat with the boldness of the operator. If he is looking for a high percentage of five-year cures his percentage of operability must be kept well down and large numbers will be denied operation. In deciding upon operability knowledge of the lines of extension of the various forms of uterine cancer is necessary.

Cancer of the vaginal portion of the cervix grows as a cauliflower mass in the vagina, infiltrates the submucous tissue or produces an ulcerating funnel-shaped cavity or a flat ulcerating surface. All these forms extend along the surface toward and into the vaginal walls or underneath them, breaking out in ulcerations as the infiltrating nodules advance through the vaginal mucosa. The extension does not go along the surface of the cervical canal. The body of the uterus is attacked only in the very last stages. The tissues of the parametrium are reached from the lowest part of the supravaginal portion of the cervix, or the vaginal wall, by lymphatic drainage. The bladder and rectum are not involved till quite late, and the lymphatic glands affected are the hypogastric and iliac. Metastasis to various internal organs takes place very late.

Cancer of the cervix begins in the mucous membrane of the cervix, infiltrates and ulcerates, and extension takes place along the surface toward the uterine cavity and not toward the vagina. The body may also become involved through extension in the substance of the uterus. The only way the vaginal walls take part in the process is from extension in the submucous tissues, never as a surface extension. The pelvic connective tissue becomes involved through direct extension from the periphery of the cervix along lymphatic channels, and forms the infiltration mass felt on palpation through the vagina or rectum, the recognition of which is so important in diagnosis. One rarely sees the patient until this parametrial extension has taken place. The bladder becomes involved early, the rectum late and the iliacs are the first lymphatic glands to suffer.

#### CANCER OF THE BODY OF THE UTERUS

Carcinoma of the body begins in the mucous membrane lining the cavity of the uterine body, and may be diffuse, involving the whole mucosa, or circumscribed or polypoid. The diffuse variety is the only one which may spread beyond the internal os into the cervix. As a rule all the varieties are arrested at the internal os. Extension by infiltration of the walls of the uterus takes place very slowly, and the inflammatory reaction in advance of this causes much thickening. Finally the peritoneum over the surface of the uterus becomes diseased. The parametrium is affected late as are the bladder and rectum. The glands involved are the lumbar group, on the vertebral column about the aorta. Sometimes the inguinal glands become

infiltrated or inflamed, through extension along the lymphatics which accompany the round ligaments.

Considering these lines of extension it is readily understood why cancer of the body of the uterus gives the best results by surgical treatment, and why cancer originating in the mucosa of the cervical canal is worse than that of body or portio, Broder's malignancy group being the same. In fact it is usually stated that over 60 per cent of the simple hysterectomies for adenocarcinomas of the body result in five-year cures. This is so satisfactory that it is generally agreed operation is the treatment of choice for cancer of the body of the uterus.

There are two other methods of treatment which take no account of operability or inoperability; nearly all cases being acceptable for treatment. These two methods are treatment with the actual cautery and with radium.

#### CAUTERY TREATMENT

Thorough cauterization from below is attended with a considerable number of fistulas, and if combined with the Wertheim hysterectomy an added mortality of some 20 per cent must be expected. If the cautery can claim a higher percentage of cures than other methods, statistics to prove which are not available at present, that of course will outweigh the immediate mortality hazard.

So those who have the temperament which permits them to face a 20 per cent immediate mortality with equanimity may choose to operate with the knife or cautery. As radium treatment is attended with practically no mortality, I am in favor of that agent for the treatment of cancer of the cervix and portio. I would still do simple hysterectomy for cancer of the body, for that involves no great operative mortality, and radium probably offers no better prospects.

#### RADIUM TREATMENT

The results from radium in the cervix cases will probably be improved as methods become more standardized. In this country it is generally considered best to give one large dose and no more. Some wait till the immediate radium effects are over and then operate. This interval is important, for the tissues after radium contact are in no condition for immediate operation. These radium changes are described by Farrar:

1. A stage of hyperemia most pronounced one week after the radium application. The tissues are red from engorgement of the blood vessels.

2. A stage of slough. Three weeks to one month after irradiation there is sloughing of the cancer tissue, greenish in color, and there is a foul discharge. This sloughing stage in some cases may be over in a month and the necrotic tissue separated and discharged, but sometimes it is present for two months. Certainly operation is not safe till this stage is passed.

3. A stage of healing, which is complete in two to three months. The slough has disappeared and the cervix is clean, dusky red in color, somewhat glazed, but with no evidences of carcinoma.

4. A stage of contraction. During the fourth month the tissues of the cervix and vaginal vault begin to contract because of the formation of con-



nective tissue which irradiation excites. It suggests the senile changes which one sees in the cervix and vagina in old women. Sometimes the tissues of the cervix are so shrunk and obliterated that the appearance is like that of an amputated cervix. Sometimes these changes completely close the internal os and a pyometra or hematometra may occur. The patient complains of uterine cramps and looks septic. A gentle dilatation is followed with evacuation of the fluid and immediate improvement in health. Sometimes during this stage, improvement is arrested, with the appearance of little nodules in the cervix or vaginal vault, which must be treated with a radium needle or two.

Finally when serious recurrence takes place it is usually in the tissues of the pelvis and glands above the area irradiated along the lines of extension already described. Only occasionally is death due to metastasis in distant organs. In that respect cancer of the uterus seems to behave differently from cancer of the breast which often recurs in the liver, bones, and other organs far removed from the original site.

#### COMBINED RADIUM AND SURGICAL TREATMENT

There is difference of opinion over the question of adding operation to the radium. At the Mayo clinic Bowring says they are not now performing the more radical operations of the Wertheim type. They use radium in small broken doses, 50 mg. at intervals of three or four days, and operation if thought advisable is delayed for about six weeks or longer till the area is healed and all gross evidence of carcinoma gone. Crile has ceased operating and uses 100 mg. of radium in the cervix for twenty-four hours. That was also John G. Clark's method. Most of the gynecologists at the Woman's Hospital in New York do the same, and that is the method at the Memorial Hospital, with the addition of their radium bomb and low voltage x-ray after-treatment.

Bowring, and Healy of the Memorial, both say that when hysterectomy is done after a proper application of radium, it is unusual to find in the specimen any microscopic evidence of cancer; and Healy goes on to say, "With this evidence in hand, it is difficult to understand why these patients should any longer be subjected to a dangerous surgical procedure for the removal of an organ which has been purged of its disease by previous irradiation. If the irradiation has been effectively carried out, the subsequent operation is unnecessary and may be harmful, whereas if the irradiation has been ineffectively instituted then the operation is useless, as experience has shown, for the cancer rapidly recurs in the parametrium."

The low voltage x-ray therapy is added because it is hoped it may reach some cancer cells too far away for penetration by the radium rays. Healy thinks it has improved their results.

#### THE RADIUMHEMMET OF STOCKHOLM

This is not the opinion of Heyman of the Radiumhemmet in Stockholm, who states: "We have abandoned the combined radium-roentgen

treatment, since we have found that the results were not better, but rather worse than with radium alone. Nowadays we resort to roentgen treatment in conjunction with the first series of radium treatments, only in those cases in which there are extensive glandular metastases from the very start." He adds that they treat recurrences in the parametria with roentgen rays, and also similarly treat patients who have severe pains which persist in spite of radium treatment. They are opposed to the massive doses of x-rays, using one-half to one-third of a skin erythema dose, daily or every other day.

The Radiumhemmet is a hospital founded by the Swedish Cancer Research Society and is partly supported by government grants. It is conducted by Gösta Forssell, who introduced radium into Sweden about 1910, and the gynecologic work is now done by James Heyman. During its first years of operation it was Forssell's idea that only inoperable cases should be treated. "The radiological treatment was to be extended to operable cases only when the results justified such procedure." In 1920 they made their first report and the results were so good that many leading gynecologists and surgeons of Sweden ceased operating for cancer of the cervix. Since that time the hospital has accepted both operable and nonoperable cases. Cases with metastases in glands and vaginal walls, bladder or rectum, are classed as inoperable. In 1915 their inoperable plus borderline cases were 97.5 per cent; after 1918 the addition of operable cases reduced this percentage till in 1921 it was 63.5 per cent. A remarkable thing about this institution is that their organized control of the patients is so thorough that the follow-up is 100 per cent perfect. It is inspiring to visit a clinic which through the enlightened policy of a benevolent government has not lost sight of a single patient since its beginning. The Swedish government pays the traveling expenses of poor patients to and from the institution. In the eight years, 1914 to 1921 inclusive, 505 patients were treated for cancer of the cervix. One-fifth of the patients were under forty years of age.

It has been noted by various investigators that cancer of the cervix in those under the age of forty is on the whole less favorable for treatment. Of all cases, 20.5 per cent were free from symptoms after five years. Segregating those classed as operable or borderline, 40.5 per cent were free from symptoms after five years.

This represents about the best that radium can do at the present time. It offers hope for those the surgeons reject as inoperable, namely, about 60 per cent; it accomplishes about the same percentage of five-year cures in those classed as operable. Last but not least, it has an operative mortality of only 1.9 per cent as against 18 or 20 per cent for surgery.

Radium treatment causes very little discomfort to the patient and only a day or two of hospitalization. Even the anesthetic can be eliminated in many cases.

Much more could be said about the technique of radium application, but such a discussion would

be material for a long paper in itself. One finds a good deal of difference of opinion regarding dosage, screening, and other factors, in the various clinics; and it involves a good deal of study and sifting of data to decide upon the most effective manner of radium employment. There are some points in this Stockholm method which impress me beyond what I have seen in other places. At Stockholm they prefer three treatments to the one which is customary in America. There is the initial application followed by another in one week, and a third three weeks after the second. They filter through lead, which is not customary in many clinics. The total dosage after three applications is from 2220 to 2640 milligram hours in the uterus and about 4500 milligram hours in the vagina. I am convinced that much of the lack of confidence in radium is due to inadequate study of technique. Radium therapy merits as much attention as do the details of complicated surgical procedures.

251 Moss Avenue.

#### DISCUSSION

EMIL G. BECK, M.D. (2551 North Clark Street, Chicago)—In this paper are expressed the most modern views on the treatment of cancer of the uterus.

Doctor Ewer emphasizes our limitations and his conservative attitude toward useless surgery.

Radical surgery, such as the Wertheim operation, is not so popular as it was before radiotherapy had demonstrated its usefulness.

I approve very much the combined treatment, namely, surgery plus radiotherapy. When the growth is confined to the uterus, and the adnexa are not involved, an extirpation is the most logical procedure. If the cervix alone seems to be involved, the removal of the cervix with subsequent treatment by radium will probably be the safest procedure.

Radium is especially advantageous in the treatment of carcinoma of the uterus because the growth is, so to speak, external; in other words, it is accessible to the direct contact of the radium with the growth proper, similar to epithelioma of the lip. Radiotherapy is efficacious only when applied by a competent radiologist who is also familiar with pathology. Haphazard application of radium or x-ray does more harm than good.

It is often difficult to make a correct diagnosis of a beginning carcinoma of the cervix without making a biopsy. Usually when an ulcer does not respond to local treatment, such as silver nitrate application, it should be looked upon with suspicion and a biopsy made and treatment instituted in accordance with the pathological report.

The paper offers many valuable suggestions in the treatment of cancer of the uterus.

THOMAS O. BURGER, M.D. (1301 Medico-Dental Building, San Diego)—I wish to compliment Doctor Ewer on his progressive and erudite paper.

Broder's classification has been an aid in prognosis and more scientific treatment. It warrants more study than it is usually given. Many communities lack the laboratory skill it requires. Routine diagnostic curettage in suspected cases is imperative. Following this procedure insertion of the element tandem serves the best interests of all. If the microscopic picture shows no evidence of malignancy and the condition is one of chronic metritis, then bleeding has been controlled. Whatever the degree of malignancy, tendency to extension and metastasis has been markedly lessened. Further surgical procedures, if contemplated, may be carried out with a greater margin of safety.

The predisposing rôle of inflammatory lesions of the cervix to malignant changes is well established. I am a staunch advocate of cautery treatment in these

cases. There is no better means of destroying the infected glands and unhealthy epithelium. The scar tissue replacement which takes place leaves poor soil for malignant changes. In early neoplastic lesions of the cervix, removal of the glandular area by a combination of cautery and radium application has given satisfactory results. If plastic work is indicated, I have obtained excellent results with Sturmdorf's operation performed with a fine actual cautery tip or the endothermy knife.

Although it has been frequently brought to the attention of the profession, postpartum care of cervical injuries is far from satisfactory. Too often, as Doctor Ewer states, more harm than good is done by some bizarre repair.

I cannot express myself strongly enough in favor of radium therapy for treatment of any malignant lesion of the cervix. The mutilating operations of past years with their doubtful curative value, frightful mortality, and invalidism have no place in modern treatment of this condition. Radium is safe in application; has a negative mortality; a larger per cent of cures; and, certainly in hopeless cases, gives greater comfort and longevity than any other method at our disposal.

In malignancy of the corpus uteri, according to the microscopic picture, I prefer the combined treatment; that is, insertion of the radium tandem, giving 3000 milligram hours after diagnostic curettage, followed by panhysterectomy in a month or six weeks' time. In this regard, and in support of Polak's views that general anesthesia in part lowers resistance and favors extension of the malignant process, I have for some time used spinal anesthesia. This anesthetic properly administered and controlled is absolutely safe, and is regularly followed by the most favorable convalescence. In many of the severer cases, transfusion of whole blood makes these patients infinitely better surgical risks. I have also found that after radiation and before operation, catheterization of the ureters with the usual opaque x-ray catheter is very helpful in preventing injuries in the presence of altered anatomical relations.

#### THE SURGICAL PROSTATE \*

By LOUIS CLIVE JACOBS, M.D.  
San Francisco

DISCUSSION by Chester H. Woolsey, M.D., San Francisco; L. R. Reynolds, M.D., San Francisco; George W. Hartman, M.D., San Francisco.

A SURVEY of 209 suprapubic prostatectomies at the Mount Zion Hospital, San Francisco, with eleven deaths or a mortality of less than 5½ per cent, reveals a large number of postoperative complications. These complications are the factors that contribute to stormy convalescences and slow recoveries.

#### HEMORRHAGE

The greatest contributing factor to poor results is hemorrhage; either immediate at the removal of the gland or at any time subsequent thereto.

In the above survey there were eight cases of postoperative hemorrhage. I have no record of the number of bleeders nor of the quantity of blood lost at the operating table.

I had one death as the direct result of severe hemorrhage. Immediately following the enucleation blood welled up into the bladder as rapidly as gauze packs were applied. With the use of the

\*From the Urological Department, Mount Zion Hospital.

\*Read before the Urology Section, California Medical Association, at the Fifty-Sixth Annual Session, April 25-28, 1927.



suction apparatus and retractors a bleeding vessel was located on the anterior upper aspect of the torn capsule. Following ligation the hemorrhage ceased; but the patient was in such a very poor condition as a result of the loss of this large quantity of blood that he succumbed in a few hours.

One other case may be cited:

Mr. E. L., age 60, was operated upon January 21, 1925. No unusual bleeding at operation. Nevertheless the prostatic area was packed with about four yards of three-inch packing. On the whole his condition was remarkably good, his pulse being 90 per minute at the conclusion of the surgery. Seventy-two hours later, at 10 a. m., the gauze was removed. At about 2 p. m. the patient's bowels moved. This was followed by severe hemorrhage, the pulse becoming rapid and weak. The house surgeon injected horse serum and introduced adrenal solution into the bladder. These procedures checked the hemorrhage, but left the patient in a very weakened condition. At 6 p. m., though there was no bleeding and the drainage was excellent, the patient became dyspneic with air hunger, the pulse became rapid and thready, death occurring at 6:55 p. m.

Postoperative hemorrhage usually occurs within the first twenty-four hours or from five to ten days later. It is rare that the removal of the prostate is accompanied with but little bleeding. Today all authorities are agreed that hemorrhage is the most important complication in prostatectomy. We are dealing with old men, with whom we have used every available method to build up and increase resistance. At best, they have only a limited amount of reserve power, and when these older men lose blood, no matter how little, it weakens their vital forces and lowers their resistance and, to my mind, accounts for their susceptibility to postoperative complications and slow recovery.

Bleeding during prostatectomy is due to the following conditions: from the lacerated edges of the capsule when the enlarged gland is dissected free; from a lacerated sphincter muscle, which prevents the proper contraction of the bladder neck and cessation of the oozing; from the breaking into the plexus of Santorini by the operator; or to a varicosity on the upper urethral wall.

In my collection of cases, those large prostates that grew up inside the roof of the trigon are the ones that produced the most hemorrhage, the oozing being greatest from the posterior lip of the freed capsule. These are the cases in which, with proper retraction and extreme Trendelenberg position, a suturing of the torn posterior capsule is required.

Secondary hemorrhage may occur at any time, though usually it occurs from the fifth to the tenth days. It is often brought about by straining upon the part of the patient; by a hypocoagulability of the blood or a dislodgement of a blood-clot. It is not an infrequent occurrence after the enucleation of a large prostatic tumor to have no immediate hemorrhage, but within the first hours following

the operation to find a most alarming hemorrhage. This has at times occurred with the removal of the gauze utilized in packing the pouch.

#### MEASURES OF PREVENTING HEMORRHAGE

To decrease the morbidity attendant upon prostatic enucleation it is important to conserve the patient's blood, and one must routinely consider the coagulability of the blood in the preparatory stage of our prostatectomies. With the general routine blood examinations, the clotting time should be taken, and if found prolonged the patient should be given 10 cc. of 5 per cent calcium chlorid intravenously and three or four whole blood intramuscular injections of 20 cc. each. If the clotting time be normal, then preliminary to the operation, 10 to 20 cc. of whole blood should be given intramuscularly, and if the operation is followed by oozing, both whole blood and calcium chlorid should be given. If it be impossible to obtain other than the patient's own blood it should be withdrawn and reinjected intramuscularly. This procedure increases the coagulability of the blood and lessens the tendency to hemorrhage.

The clotting time of the blood is the time necessary to clot blood which has been drawn into a capillary tube. Every twenty seconds a small portion of the capillary tube is broken off. As soon as thin strands of fibrin are seen the time is noted. This is considered the clotting time, and normally it is about five to seven minutes.

There is a physiological complex present in the circulating blood, of which the controlling factors are: fibrinogen, parathrombin, antithrombin, and calcium. The disintegration of the blood platelets, which takes place in the clotting of the blood, is dependent upon the liberation of thromboplastic material. In the presence of thromboplastic material in the tissues, the antithrombin of the blood is liberated and this activates the parathrombin, which, combined with calcium, converts the fibrinogen into fibrin, producing the clotting.

Researches on the coagulation time after prostatectomy revealed that there is first a period of hypocoagulability lasting four to five days. This is followed by a phase of hypercoagulability which reaches its maximum toward the eighth or tenth day. Coagulability becomes normal again toward the third or fourth week after operation. These phases of hypocoagulability have been attained by experiments conducted by Legueu, Garcin, and Decourt, all French surgeons, who advocate the following: intramuscular injection of 10 cc. anti-hemorrhagic serum and intravenous injection of 20 cc. of 5 per cent calcium chlorid, twenty-four hours before operation. The latter injection is repeated on the morning of the operation. Claim is made that with this technique the loss of blood is very small and there is no secondary or late hemorrhage.

I would suggest an improvement, by substituting whole blood injections in place of other thromboplastic material.

During the last ten years, in the surgical department of Mount Zion Hospital, numerous forms of thromboplastic material were used for hemor-

rhage resulting from hypocoagulability of the blood, but it was ascertained clinically that with whole blood injections the results were better, and that at times whole blood injections have been almost miraculous as a life-saving procedure.

In the urological department at Mount Zion Hospital I have had frequent occasion to use it in obscure hematurias and the results have always been phenomenal. In the prostatic patients it seems to have other therapeutic actions besides stopping hemorrhage. It stimulates the pulse, increases its volume and likewise acts as a respiratory stimulant. There is no reaction after these injections nor any rise in bodily temperature; nor is there any pain accompanying these injections.

The technique is as follows: By means of a 23-gauge needle fitted to a 20 cc. Luer syringe, blood is withdrawn just as one does in taking blood for the Wassermann reaction. The needle is then changed to one of a 20-gauge size, and the withdrawn blood is injected into the gluteal region exactly like the routinely standardized intramuscular injections that we all use in the treatment of lues. One must work fast, for there is tendency for the blood to clot in from five to seven minutes.

It is self-evident that as a prophylactic for bleeding especial attention should be employed in the operative technique; utilizing that which will produce the least amount of laceration and tearing to the tissues and that which will allow the best and quickest exposure. Where deemed necessary, the two-stage operation is an excellent procedure, but I cannot agree with those authorities who claim there is less danger of bleeding in this form of procedure, even though their theoretical explanation in its favor is very excellent.

Massaging the prostatic capsule is an excellent procedure and many operators resort to this as a routine. There are but few operators today who irrigate with solutions to check hemorrhage. The majority pack with gauze, either the prostatic cavity or over the capsule of the prostate. Others utilize gauze impregnated with thromboplastic substances, such as kephalin, etc., or chemicals such as Monsel's solution or adrenal chlorid: Others again retract the bladder walls and, after getting the proper exposure, either ligate the bleeding points or suture the torn capsule. Some operators suture the torn capsule as a routine procedure.

Various methods of packing the prostatic pouch with gauze have been utilized—some use it as tampons, others pack it around urethral catheters, and others again use it in strips. There has been a great deal of objection to the use of gauze: on account of enhancing the danger of embolism; and adding to the frequency of hemorrhage which results from the gauze becoming saturated with urine and blood, when it would in part become loosened and would fall into the bladder, allowing the bleeding surfaces to rebleed. Others again suture the capsule over gauze packing. The embedding of fat in the cavity and also the use of the sponge-stick have also been successfully used.

However, at the present time the majority of operators are using an inflatable rubber bag on

account of the objections to gauze—the large amount of gauze material necessary to secure absolute control of bleeding, the pain and unnecessary distortion of healing surface caused by its removal, and the need of greater security against late bleeding.

The ideal method of using gauze is to pack it around a sound inserted through the urethra into the bladder, and the slow removal of the sound allows the gauze to become firmly wedged into the operative field, stopping all hemorrhage.

#### FISTULAE

In the series of patients referred to in this paper, three patients developed suprapubic fistulae that would not heal. Two of these patients submitted to plastic surgery within six months following the initial enucleation; with the third, a year has already passed and he undoubtedly should be reoperated. In the two cases that I operated upon, I found present an eversion of the bladder mucosa with the outer coats cemented by direct union to the edges of the aponeurosis of the rectus. This was dissected loose. The bladder was sutured and inverted by means of a purse-string suture of chromic gut. After several weeks the patients were discharged as cured; and have had no subsequent trouble.

To guard against persistent fistula following prostatectomy, there should be no prolonged drainage of the space of Retzius. The lower angle of the bladder wound should be sutured, the drainage tube or gauze should be inserted high up in the bladder wall and should be removed in the course of three days. Systemic disease such as diabetes, lues or arteriosclerosis will delay healing. Likewise, where there is a persistent obstruction at the outlet of the bladder, such as is produced by remaining portions of unremoved prostatic tissue, healing will be delayed.

Reference to recent monographs upon the subject of prostatectomy gives evidence that persistent fistulae, though relatively a rare condition, occur oftener than is generally believed.

#### EPIDIDYMITIS

Epididymitis occurred in 12 per cent of the cases; and it was bilateral in 4 per cent. I do not use an indwelling catheter following prostatectomy, so cannot state whether the epididymitis was of traumatic etiology. However, I believe it to be the result of infection. Where compatible I advocate a double vasotomy to avoid the discomfort of this complication. In one patient, two months following his prostatectomy, I performed a double vasotomy and orchidectomy for bilateral epididymitis. At the present time his condition is excellent. Where it is impractical to perform a preliminary vasotomy, especial attention should be placed upon the proper support of the testes.

In this paper I have dealt with but a few of the very important complications of the surgical prostate. I have made no attempt to enumerate or classify the entire list of complications which have occurred in the above series of cases; but I

have endeavored to emphasize the importance of bleeding as a factor in morbidity and also the value of whole blood injections.

The value of bilateral vasoligation as a safeguard against epididymitis, is a mooted question. Though a chronic fistula is relatively rather rare, owing to the standardized technique in the operative procedure, there arises occasionally, nevertheless, the necessity for reopening the abdominal wound for repair of the fistulous tract.

462 Flood Building.

#### DISCUSSION

CHESTER H. WOOLSEY, M.D. (490 Post Street, San Francisco)—In commenting upon Doctor Jacobs' comprehensive paper on the surgical prostate, I wish to speak only on that phase of it which pertains to postoperative hemorrhage, which, as the essayist states, is most responsible for poor results and sleepless nights.

Previous to my trip abroad last year I had many fixed ideas about postoperative complications following prostatectomies, and especially so concerning hemorrhage. These tended to produce a sense of dread and fear of postoperative hemorrhage. In my travels abroad last year I happened to spend a few weeks in London, and I took advantage of the opportunity to see the work of several prominent English urological surgeons.

At St. Peters Hospital for Stone, I saw Mr. Swift Jolly operate on several cases of prostatic hypertrophy. He did only the suprapubic operation. His preoperative technique was very thorough, occupying a week or more if necessary. Kidney function and blood urea especially were looked after. So far as I could learn he did nothing about the determination of blood coagulability. He told me he had no faith in agents given to promote blood coagulation, depending entirely upon his system of sewing up the torn capsule after enucleation of the lobes. He made an incision extending from the umbilicus to within a half inch of the pubis, and by means of a ring-shaped abdominal retractor (of his own invention), procured an admirable view of and access to the field of operation. Following a rapid enucleation of the two lobes he temporarily packed the wounds in the capsule with gauze and proceeded carefully to stitch up with a continuous, plain catgut ligature the entire bladder neck. This when completed gave a perfectly dry field, which could be seen admirably through the exposure which his ring retractor gave.

In commenting on his technique to a group of us, he told us he had used this method in all his cases for years and that hemorrhage once controlled in this way gave no after trouble. He sewed in a two-way drainage and flushing tube (also of his own invention), stitching close down to it. This he removed on the third day. He said that if his patient was not up and about on the tenth day he was mightily peeved and his orderly was in for a good grilling. I followed in the wards; three of his patients verified his statement. Two of the patients whom I saw him operate on had the very large type of prostate, both bleeding furiously following enucleation of the lobes. As I watched him in his slow deliberate manner mop and sew up, I wondered if the patient would not be exsanguinated, but soon he gave us opportunity to look in and see a tightly sewn and dry bladder neck.

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L. R. REYNOLDS, M.D. (909 Hyde Street, San Francisco)—I wish to congratulate Doctor Jacobs upon his clear and concise presentation of these postoperative complications, and his suggestions for dealing with them.

Complications following the removal of the prostate gland are always disturbing and sometimes terrifying to those of us who do urological surgery.

Postoperative hemorrhage has always been one of the dreaded complications; especially when we used

to enucleate the gland without exposure sufficient to see exactly where the bleeding was coming from. As the suprapubic prostatectomy is now done entirely under vision, it is fairly easy to stop the bleeding either by ligature, suture, or packing of the capsule. Occasionally the bleeding vessel is large enough to demand a ligature, but in most cases it is a general oozing from the plexus and can be controlled by a pack or inflated bag. I feel that it is the duty of the operator to stop the hemorrhage while he can see into the capsule and not partially stop it with a pack or hot compresses and then hope that some thromboplastic material will check the bleeding. Doctor Jacobs' practice of determining the clotting time is of great value, because it influences our prognosis if we know before operation that we are dealing with a hemophilic. We have found that by using a glass cystotomy tube we can remove the packing much easier and with far less pain to the patient than where a rubber tube is used. If there is serious bleeding following the removal of a pack I believe the patient should be reopened immediately and repacked before he has lost enough blood to jeopardize his recovery. We have used the injection of whole blood to arrest hemorrhage, but I would be afraid to put much confidence in it in a case that was actually bleeding.

Unless the patient refuses, we have been doing bilateral vasectomies routinely for two years and have had no cases of epididymitis in cases where the vasotomy had been done. I feel that this is the best method of preventing a postoperative epididymitis.

We rarely see a suprapubic fistula any more, and I think it is because operators are leaving the bladder orifice in much better condition, now that the work is done under vision. There are no obstructing tabs or bars left. I was particularly interested in what Doctor Jacobs had to say about suturing the lower angle of the cystotomy wound to prevent its becoming attached to the symphysis.

For some time we have been making our cystotomy wound transversely across the top of the bladder leaving a goodly portion of normal bladder wall between the cystotomy tube and the symphysis. This incision permits excellent exposure of the inside of the bladder without disturbing the space of Retzius; is easily sutured and precludes any possibility of the wound becoming attached to the symphysis.

✱

GEORGE W. HARTMAN, M.D. (999 Sutter Street, San Francisco)—Doctor Jacobs' mortality statistics are very good. I think that all results are susceptible of improvement as surgeons learn the importance of the proper preparation of the patient.

As Doctor Jacobs says, we are dealing with old men with low resistance. In this type of individual a balance has been struck which enables him, in spite of various deficiencies, to get along. The imposition, however, of an unusual strain upon his organs, especially his kidneys and heart, is very apt to be a deciding factor against him. Therefore arises the extreme importance of careful study and preparation preceding operation. There should be no time limit to this. Where a week might suffice with one individual, months would be required for another. This preliminary period of preparation will uncover various weaknesses in the organs mentioned, all of which should be investigated to their fullest extent. The determination of blood coagulation time should be routine, for there are at present many means for reducing this if it is unusually prolonged.

One might say there are, roughly, two schools of suprapubic prostatectomists. The one, of which McKenzie of Montreal is a good exponent, believes in rapid enucleation, largely by touch; the other, as exemplified by Thompson Walker, believes in the visible enucleation. Each method has its advantages and disadvantages, but there can be no valid objection made to the disclosure of the operating field at the time of operation for the proper control of hemorrhage. If this could be done, then packing, bags, or other methods of hemostasis might be dispensed with to the



obvious comfort of the patient. I rarely find it necessary to use these measures; in this way relieving the patient of the tenesmus which is so apt to accompany the presence of a foreign body in the bladder. Freyer's method of massaging the capsule has always been very helpful.

In enucleation of the prostate careful placement of the finger between the capsule and the gland, careful adherence to this line of cleavage and gentle blunt dissection, rather than tearing, will do much to avoid hemorrhage. Early removal of the suprapubic drainage tube which previously has been secured tightly in the bladder so as to leave a minimum of free edges will obviate prolonged continuance of fistulae.

Doctor Jacobs' recommendation of brief drainage of the space of Retzius is of extreme value. Vasoligation and well-maintained support of the testicles are most effective in preventing epididymitis. This, however, cannot always be guaranteed, as it was the first complication which happened to me several years ago following an operation.

### MOLLUSCUM CONTAGIOSUM\*

By HUGO A. KIEFER, M. D.  
Los Angeles

DISCUSSION by M. F. Weymann, M. D., Los Angeles; J. William Crawford, M. D., San Francisco; George H. Kress, M. D., Los Angeles.

THE name molluscum contagiosum (molluscum epitheliale—acne variola forma) must not be confused with molluscum fibrosum or molluscum simplex, which represents an entirely different disease from that under consideration.

Molluscum contagiosum occupies a rather unique position among eye diseases on account of its extreme rarity. Because of this infrequent occurrence the writer wishes simply to present two case reports.

By reason of its contagious nature, one would expect it to be quite frequently observed, so its infrequency becomes a sort of paradox. Prof. Anton Elschnig<sup>1</sup> of Prague reports seeing four cases of molluscum contagiosum in ten thousand clinical eye cases. In over twenty years of private and clinic work the writer has seen but two cases.

#### ETIOLOGY

The disease may be defined as a contagious condition of the skin of the eyelids and face, running a subacute course, and characterized by small elevations of the epithelium, usually, but not always, having a central depression, and resembling somewhat the papules or umbilicated pustules of variola.

It attacks both sexes at all ages, but is most often found among people during the period of adolescence. The same type of lesion has been found on the epithelial structures of chickens and pigeons, as on the eyelids and beaks; and lesions histologically typical of molluscum have been produced by introducing material from the molluscum tumor into scarified areas of the combs of chickens. While the skin of the eyelids and of the neighboring facial regions are the usual sites of invasion, it does rarely attack the skin of any other part of the body, and sometimes the bulbar conjunctiva, and oral mucous membranes.

Inoculation experiments have been successful,

and these, together with clinical evidence, fix the incubation period as ranging from a few weeks to three years. The last figure may seem questionable. Lyle B. Kingery<sup>2</sup> places the incubation period at twelve to twenty-one days, by intracutaneous injection in the human subject. It has been claimed that an organism belonging to the chlamydozoan group is the causative factor, exciting a hyperplasia of the epithelial cells, which subsequently undergo a metamorphosis and degeneration. J. Jackson Clarke<sup>3</sup> has isolated from the contents of the molluscum tumor a filterable virus consisting of a protoplasmic organism of rather complicated structure, and quite actively motile.

#### THE LESIONS

The lesions appear as papules, either rounded or umbilicated at the center, from a pinhead to a split pea in size, but usually about 3 mm. in diameter; or rarely as small pedunculated tumors with an irregular surface. The plain papules are pinkish or yellowish; while the umbilicated form, which is the more common, is usually yellowish or waxy looking. The central depression may appear dark (gray or nearly black), or of a creamy white. It is seldom that the lesions coalesce. When squeezed quite vigorously, a grayish white, amorphous substance resembling sebum held in a delicate connective tissue reticulum is expressed from the depths below the umbilication. Usually the lesions are quite indolent, and eventually disappear by absorption. Suppuration is rare. The pathology is still quite obscure. Whatever the cause may be, it appears that there is a hyperplasia of the rete mucosum; the epithelial cells become altered and degenerate; and there is formed a cheesy, homogeneous mass, containing the so-called "molluscum bodies." This cheesy mass is enclosed in a fibrous capsule, which sends delicate shreds throughout the mass to form a reticulum. (The molluscum bodies consist of small, clear, hyaline bodies, oval in shape, resting close to the nuclei of the epithelial cells, and having their own nuclei.) One will find a good deal of confusion in the description of the pathology and of the molluscum bodies by different investigators.

The symptoms are almost nil subjectively except when the lesions occur on the eyelids or conjunctiva, in which case there is usually associated a good deal of conjunctivitis. One of the writer's cases, Mr. R. P., presented an accompanying follicular conjunctivitis confined to the lower lids, and very stubborn in character. The other, Mr. A., had what appeared to be a simple conjunctivitis.

There are not many conditions with which this ailment can be confused. At first sight it might be mistaken for acne, a syphilid, or even for an atypical variola; and the pedunculated form might be diagnosed as a verruca. Comedones and fibromata are also to be excluded.

#### TREATMENT

Many different methods of treatment have been suggested, such as expression; cauterizing with carbolic acid, trichloroacetic acid, or strong silver nitrate solution; the application of oxid of zinc, or boric acid powder; nipping off the peduncu-

\* Read before the Eye, Ear, Nose, and Throat Section, California Medical Association, at the Fifty-Sixth Annual Session, April 25-28, 1927.



lated tumors; the electric needle; and the actual cautery. The writer believes that the actual cautery applied at a low degree of heat, just below a dull red, is one of the best methods, as its action is quick, painless and efficient, and leaves no scar. Under its use the lesion promptly scabs, desiccates and disappears.

The prognosis seems to be good for ultimate recovery without sequelae.

406 Brockman Building.

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#### DISCUSSION

M. F. WEYMANN, M.D. (2007 Wilshire Boulevard, Los Angeles)—Doctor Kiefer has done us a service in calling to our attention a condition which may be met with by oculists, and still is so little known to most of them. Although the condition may be common to dermatologists, it is rare in an ophthalmological practice. In over five years I have had only one patient with this trouble. She was a young woman with two discrete nodules about the size of a pea on the upper left lid. These were umbilicated and about one centimeter apart. There were no other lesions on the body, but there was a history of one on the lower lid which had previously spontaneously disappeared. For microscopic study, I removed both lesions with an elliptical incision. The histological picture was typical of molluscum contagiosum as described by Doctor Kiefer. There was no recurrence.

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J. WILLIAM CRAWFORD, M.D. (384 Post Street, San Francisco)—Molluscum contagiosum is primarily a dermatological problem rather than an ophthalmological one. It is essentially a disease of the skin and affects the skin in the neighborhood of the eyeball only occasionally, but in such cases it in nowise differs from molluscum contagiosum elsewhere on the body. Its extreme rarity as reported by Doctor Kiefer and other ophthalmologists is only an apparent one, for molluscum contagiosum is a disease seen quite commonly by dermatologists, as the records of any skin clinic will show. The vast majority of the patients affected with the lesions on the skin about the eye go directly to the dermatologist or are referred to him by the physician first consulted. It is only occasionally that such a patient will consult an ophthalmologist. It is quite possible too that in some cases the diagnosis is overlooked by the attending physician and the lesion put down as a verruca, a mistake that can readily be made by the uninitiated.

It is therefore well that we have our attention called to the possibility of the condition and be reminded of its essential characteristics as Doctor Kiefer has done.

The essential characteristics of the disease are these:

1. Small isolated, waxy epithelial tumors, white or pink in color, having minute rounded orifices at their apices looking not unlike small pearl buttons.
2. The condition is mildly contagious.
3. Mucous membranes are but rarely affected, but when they are involved the lesions present the same characteristics.
4. The condition tends to spontaneous recovery.
5. The majority of the patients are children.
6. Constitutional symptoms are absent.

The most common error in diagnosis is to confound the condition with verruca, though the lesions are sufficiently characteristic to be readily recognized if

the disease is kept in mind. The absence of pedunculation and the presence of umbilication serve to differentiate the conditions.

The simplest treatment, probably, is to curette the lesions and touch the base with phenol. This is the method followed in the dermatological department of the University of California.

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GEORGE H. KRESS, M.D. (245 Bradbury Building, Los Angeles)—Diseases which are only occasionally met with lead most physicians to take an increased interest therein. Thus pterygia, which almost all medical students in America early learn to recognize, are rather infrequently met with in European clinics and excite special comment.

Molluscum contagiosum is primarily an infection of the skin, more often of the face; and because the lesions are often on the eyelids, not infrequently come under the observation of the eye specialist. Doctor Kiefer has described the disease and the current views in regard thereto. It must be confessed that since it was first discovered about a century ago, that our actual knowledge of it has not been greatly increased. Its clinical signs were then recognized, but its causative agent has as yet not been isolated. Its symptoms are mild and few. As stated by Doctor Kiefer it runs a somewhat benign and sluggish course and responds to treatment quite readily. Haab mentions having inoculated himself, and that in his case it was about a half year before the disease developed. It has been more frequently observed in institutions for juveniles, and among persons having uncleanly habits or of undertone nourishment. The lesions are as given by Doctor Kiefer, and the pathologic changes are largely those associated with a degeneration of the epithelial cells.

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DOCTOR KIEFER (closing)—I wish to extend my thanks to Drs. George Kress, J. W. Crawford, and M. F. Weymann for their kindly and thorough discussion of the subject, which leaves me nothing further to add.

## SICKNESS VERSUS ACCIDENTS IN INDUSTRY\*

By C. O. SAPPINGTON, M.D.  
Oakland

DISCUSSION by Robert T. Legge, M.D., Berkeley; Philip Stephens, M.D., Los Angeles.

A CASUAL survey of the history of the state compensation laws of this country leads one to the inevitable conclusion that workmen are fairly well protected in case of injuries resulting from industrial accidents. Such a provision arose out of the fact that most authorities came to the decision that the responsibility for the economic adjustment, consequent upon injury, incapacity and rehabilitation should rest with the employer and be charged to the cost of production. That such a theory has been proven sound in practice is now a matter of history.

Following upon this principle came the problem of the assumption of risk from the standpoint of insurance carriers. Various industrial organizations were quick to realize the opportunities thus presented, with the result that there is now considerable competition to care for injured employees.

#### CAUSES OF ABSENTEEISM

Today approximately 90 per cent of industrial organizations are doing for their employees only

\* Read before the California Medical Association, Industrial Medicine and Surgery Section, at the Fifty-Sixth Annual Meeting, April 25-28, 1927.

what is required by law—caring for injuries. The purely medical phases of industrial work have up to the present time not only been side-stepped, but in most instances have been willfully neglected. The following tables presenting statistics in various industries may be of interest in this connection:

Table 1 from Hackett<sup>1</sup> shows that sickness was responsible for 60 per cent of absenteeism, while accidents were the cause of only 0.15 per cent.

TABLE 1—*Causes of Absence in a Munitions Plant, September to November, 1918 (Total, 18,491 Cases)*

Cause	Percentage of Absenteeism
Accidents	0.15
Sickness	60.75
Death	5.30
Personal	28.11
Legal	.90
Miscellaneous	4.78

Table 2 shows the experience in a large manufacturing concern. Sickness and personal reasons were the cause of 85 per cent of absences as compared with 3 per cent resulting from accidents.

TABLE 2—*Causes of Absence in a Middlewestern Manufacturing Group of 6700*

Cause	Percentage of Absenteeism
Industrial Accidents	3.2
Non-industrial accidents	1.1
Sickness (disability more than two consecutive days)	31.5
Personal reasons and sickness of less than three days	64.2

A coal and coke company record is shown in Table 3. Forty-five per cent of absenteeism was occasioned by sickness, whereas 22 per cent was caused by accidents.<sup>1</sup>

TABLE 3—*Causes of Absenteeism in a Coal and Coke Company*

Cause	Percentage of Absenteeism
Accidents	22.0
Sickness of absentee	45.1
Sickness in family	3.7
Business	20.8
Miscellaneous	8.7

Somewhat recently a survey of records of the Edison Electric Illuminating Company of Boston (Sappington<sup>2</sup>) for the five years, 1918-22, showed the results found in Table 4. Observe that there were approximately twenty times the number of cases of sickness as accidents, that the working time lost was sevenfold in cases of sickness, and that disability on account of illness was the cause of 92 per cent of absenteeism.

TABLE 4—*Absenteeism Experience of a Boston Public Utility During 1918-22*

Cases	No. Cases	Work Days Lost	Percentage of Absenteeism
Sickness	14,280	83,280	92.1
Industrial accidents	774	13,221	4.9
Non-industrial accidents	448	3,377	3.0
All causes	15,502	99,878	100.0

#### COSTS OF ILLNESS IN SOME INDUSTRIAL ORGANIZATIONS

Costs are always interesting to the industrial executive. In the Edison series sickness cost \$139,872.40 compared with \$29,412 paid out for accidents. These amounts were based entirely upon the money paid as benefits by the employees' association.

Table 5 shows the number of cases and the chief types of illness segregated according to cost.

TABLE 5—*Benefits Paid for the Six Greatest Causes of Illness (Edison Experience, 1928-22)*

Disease	No. Cases	Benefits Paid
Common colds	5,328	\$ 4,898.20
Minor digestive complaints	1,246	508.20
Pharyngitis and tonsillitis	1,007	2,455.20
Functional nervous diseases	731	19,923.20
Dysmenorrhea	683	951.10
Rheumatism, arthritis, gout	651	8,098.50
All diseases	14,280	139,872.40

The chief kinds of illness considered as factors of lost time are shown in Table 6. Note the great loss of time from common colds and the severity of joint diseases and functional nervous disturbances as shown by the average working days lost per case.

#### INDUSTRIAL MORBIDITY: NATURE, RELATION TO TIME LOST, MORBIDITY RATES

TABLE 6—*Total Time Lost and Average Work Days Lost Per Case in Chief Illnesses*

Disease	No. Cases	Total Days Lost	Average Work Days Lost Per Case
Common colds	5,328	16,983	3.2
Disturbances of digestion	1,246	2,647	2.1
Pharyngitis and tonsillitis	1,007	4,698	4.9
Functional nervous diseases	731	6,882	9.4
Dysmenorrhea	683	1,486	2.1
Joint diseases	651	4,781	7.4
All diseases	14,280	83,280	5.8

Table 7 shows that higher rates of illness in the chief types of disability causing absenteeism in the Edison experience were found in the younger age groups.

TABLE 7—*Rates Per Hundred Employees, by Age Groups, for Illnesses Causing Highest Absenteeism*

Disease	Rates per 100 Employees in Age Groups as Shown Over						
	10-19	20-29	30-39	40-49	50-59	60	All Ages
Common colds	101	57	50	51	31	18	47
Disturbances of digestion	23	15	11	10	6	3	11
Pharyngitis and tonsillitis	21	13	9	5	2	1	9
Functional nervous diseases	13	9	6	5	4	2	6
Dysmenorrhea (per 100 women)	30	42	20	12	4	0	32
Rheumatism, arthritis, gout	2	4	6	10	10	8	6
All other diseases	110	47	45	45	35	30	41
All diseases	285	158	132	128	88	61	128

Table 8 shows that the highest disease rates occurred among the females.

TABLE 8—Number of Cases, Total Rates and Sex Rates for the Chief Disabling Illnesses (1918-22)

Diseases	No. Cases	Rate Per 100 Persons	Per 100 Men	Per 100 Women
Common colds .....	5,328	47	41	76
Diseases of digestion.....	1,246	11	17	9
Pharyngitis and tonsillitis .....	1,007	9	6	19
Joint diseases .....	651	6	6	4
Dysmenorrhea .....	683	—	—	32
Functional nervous diseases .....	731	6	3	19
All other diseases .....	4,645	41	51	222
All diseases .....	14,280	128	157	683

Time and space forbid the quoting of more data. In addition to the industrial examples which have been mentioned it should be stated that of many commercial insurance companies which write both health and accident protection, the majority report that 50 to 80 per cent of their claims are paid for sickness.

#### RELATIVE RÔLES OF ACCIDENTS AND DISEASE IN INDUSTRY

Insurance carriers and employers are interested in the reduction of accidents and occupational hazards.

Can the most efficient industrial injury service exert an ameliorative influence on the incidence of accidents due or related to bad lighting, improper ventilation, toxicological factors or mental and physical defects? The answer is that one cannot any more logically separate preventive and curative measures in industry than he can separate mental and physical processes in the same human body.

Do not mistake the interpretation here intended. One would not vote for a relaxation of vigilance on the part of those attempting to reduce the number of industrial accidents. Typhoid prophylaxis is only half the story of control; the polluted stream must also be purified. The source of the difficulty is most important. Today the greatest single economic drain in industry is sickness. In the words of a leading health authority:<sup>3</sup> "For every industrial disability needing surgical attention there are probably ten or more cases needing medical investigation, and of this larger number the treatment is preventive. Hence medical work in industry should be organized around preventive medical undertakings rather than around surgical and curative measures."

#### FUTURE POSSIBILITIES

Two events have taken place in the field of industrial medicine during the past year which may be cited to show the way industrial medical service is tending. The first was the Fifteenth Annual Safety Congress at Detroit.<sup>4</sup> The subject of health problems was the dominating issue of this conference, it being the feeling of the group that "health service should be based fundamentally on prevention which, from the industrial standpoint,

is far more important than curative medical or surgical procedures." The second was the annual meeting of the Association of New York Central Lines Surgeons at which was presented a symposium on periodic health examinations.<sup>5</sup>

Industry is now assuming and will continue to more widely assume the responsibility for sickness in its workers. As one industrial hygienist<sup>6</sup> has put it, the industrial physician "ought to be projected into the great scheme of production and not forever played as a life saver." There is no logical reason why the financially more important problems incident to sickness should not be made a part of the cost of production as has been the case with accidents; but most important of all is the service that provides for careful examinations before employment, correction of physical defects, early treatment of minor ailments and other procedures calculated to preserve the health and efficiency of the worker, upon whom the quality and quantity of production depend.

Hayhurst<sup>7</sup> has summarized the values to be aimed at as follows:

1. Control of environment, personal hygiene, and physical examinations.
2. The fundamentals of industrial health which require that cost of production include the cost of health maintenance.
3. The application of health standards directly to the working classes.
4. Organization, official and non-official, for effective administration with qualified personnel.

What form will these activities take? There are several possibilities:

1. The extension of private insurance services to include this work in industrial medicine; this is now being practiced on a large scale in some eastern cities.
2. The inclusion of a division or a bureau of industrial hygiene as a part of the State Health Department. This procedure has met with considerable success in some states.
3. Probably best of all is the formation of competent medical groups which will have contact with industry on the one hand and research relations with hospitals and medical schools on the other. Such a group could foster a program of education among industries, demonstrating the value of health service and also cooperate in teaching and research in medical schools and hospitals.

#### CONCLUSIONS

1. Sickness is a far greater cause of industrial inefficiency, spoilage, absenteeism, labor turnover, and financial loss in general than injuries. It is because of this economic factor that industry will more and more assume the financial responsibility for the health of its employees.

2. Industrial medicine is in reality a phase of public health. As a leading health authority has recently stated (Winslow<sup>8</sup>), "Industrial medicine has vast possibilities of usefulness, and in this country has already accomplished more than any of the other tendencies which have been noted in bringing medical service to the individual at a



stage when the most effective measure of prevention can be assured."

3. The field of industrial medicine contains abundant material for scientific research. The opportunities will be delayed or entirely lost, however, unless more financial support and vital encouragement is forthcoming from official and non-official health agencies. Large national and local organizations must lend active aid and point the way during the formative period. Better and more definite relations must be established between active industrial physicians, hospitals, and medical schools, if organized medicine would protect its rights as a leader in the field of industrial health.

602 Hutchinson Building.

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#### DISCUSSION

ROBERT T. LEGGE, M.D. (University of California, Berkeley)—The researches of Sappington and Brundage in their studies of the absences from work due to sickness and accidents among employees of the Edison Electric Illuminating Company of Boston have revealed fundamental information needed for the acceleration of progress in the field of industrial medicine. They have definitely shown that sickness as a disability factor caused twelve times as many absences as industrial accidents.

This fact fully established, the problem remains whether industry should serve its employees with full medical care. The employer realizes he is legally responsible in all injuries, ailments and occupational diseases arising from employment. He likewise is fully cognizant that absenteeism due to illness is a financial loss to him as well as to his employee.

The National Industrial Conference Board recently, after considerable study and by careful surveys, published the following, which I shall quote:

"Private medical practitioners today will hardly question the right, even in most cases, of the obligation of an employer to provide prompt medical attention to those of his employees who have suffered injury or become ill in the course of their employment. They will surely approve every well directed effort of the employer to maintain hygienic work places and to promote the health of his employees while at work.

"Differences of opinion may arise as between private practitioners and the plant physician when the latter undertakes the treatment of all illnesses, no matter how unrelated to their employment. The tact and common sense of each plant physician must find

the proper course to pursue, which must be ethical and at the same time in the best interest of the patient, with due regard to the financial interest of the employer.

"The higher the character of medical service rendered by the plant physician the more will his influence tend toward the development and maintenance of a high type of medical service in the community in which the plant is located. There is some evidence that the supposed encroachment of industrial medical activities upon the private practice of outside physicians is more apparent than real. Where the activities of the industrial physician are confined to the treatment of ordinary injuries and ailments received during the course of employment, as well as the diagnosis of medical cases, it has been found that the work of the private physician has been augmented rather than curtailed. This is particularly true where physical examinations are required of applicants, and the defects discovered are referred to the outside physician for correction and treatment."

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PHILIP STEPHENS, M.D. (1136 West Sixth Street, Los Angeles)—"Whither are we drifting?" is the thought which strikes me with considerable force as I read Doctor Sappington's reasonable and convincing statistics and argument for a still further advancement in the program of responsibility with which not only all corporations, but all employers of labor have been, by the enforcement of the state compensation laws, compelled to assume. I believe it is an established fact at the present time, both with the working man and his employer, that the law is a good one. All are benefited—even our medical profession.

I believe that employers of labor have and should exercise their right to select by adequate physical examination healthy men and women, for the very obvious reasons: to protect themselves in their future relations, and to promote the efficiency of an organization which employees, healthy in mind and body, bring.

I believe that these employees should be examined from time to time for the above-mentioned reason, of having a healthy and efficient organization, and if the corporation has gone to the trouble and expense to so select its employees, an adequate medical organization should be maintained to keep it so, and, in most public service corporations, for the protection of the public.

Carrying the matter of medical service to the point where both the employer and employee are equally and plainly benefited by the plan is as far as we should go. Of this I am firmly convinced from many years' experience in work of this character.

We should not advise the carrying of our medical supervision to the point where the employer is assuming or tending to assume the entire responsibility for both the health of and accidents to the employee. A limit can and should be sharply drawn, not only for the good of all parties concerned, but for the future of our profession.

The character and personnel of the men doing industrial work undoubtedly is yearly improving, and with industrial advance there is a field not only recognized, but being followed by men of character and broad outlook.

These men should work hand in hand with the rest of our profession for the good of all, the maintenance of our ideals, and combat the fast-growing tendency in medicine in general, and in industrial medicine in particular, to commercialize it.

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DOCTOR SAPPINGTON (closing)—I wish to thank Doctors Legge and Stephens for their able discussion of this paper. Both have emphasized the necessity for the increase of the preventive phase of the work in the actual practice of industrial medicine.

Another important point brought out by the discussers is the need for the raising of the standards



of industrial medicine and the prevention of commercialization of the practice of industrial medicine and surgery.

The standard of practice for any group is dependent upon the personal excellence of the individuals composing the group; going one step farther back, these ideals and principles are largely developed and started in educational institutions; in the final analysis the responsibility for the type of industrial work largely rests with those who are also responsible for the grade of work done in any medical specialty.

Only a thorough cooperation between industries, medical schools, physicians, and students, will secure the desired results.

## THE LURE OF MEDICAL HISTORY

GALEN\*

By CLIFFORD W. MACK, M. D.  
*Livermore*

THE name of Galen has come down to us in medical history as one of the early Greeks who exerted a great influence upon medical thought and practice. He takes an equal place, if not a superior one, with Hippocrates as the father of medicine. Hippocrates is usually given that honor, but it seems to be proven that many of the treatises collected under his name cannot really be attributed to his authorship. Galen refers to him in many of his writings and wrote several commentaries upon them. It is asserted that the Hippocratic oath was not promulgated by Hippocrates the second, the author, but was only ascribed to him by the ancients. Mercurialis ascribed it to other persons, using as one proof that the oath prohibits the induction of abortion, and from a treatise by Hippocrates cites a case of a patient who was aborted under his own direction and prescription. It has never been determined whether the oath was written before or after Hippocrates' time, but probably the latter is correct.

In contrast to Hippocrates, the writings of Galen, of which he is definitely proven as the author, are very numerous. He was not only famous in his own time, but his teachings dominated medical thought for centuries. There must be some merit in his works, otherwise it would be difficult to understand that they were standard for over twelve centuries and any departure from them was considered heretical. Five hundred years after his time he was held in such veneration as to be regarded by many as a god and religious worship accorded him. He was copied by the Arabian physicians and, in spite of virulent opponents, the greater part of the medical world held his beliefs. Galen was compelled to oppose a long tradition of medical thought in vogue during his time. A succession of learned men had preserved in one family—that of Asclepiades—all that was then known of medicine. These ideas were based upon superstition, healing by incantations, etc., and were passed on largely by word of mouth. They were gathered together first as a written record by Hippocrates.

In the early days medicine was subject to much speculation and produced many sects which at-

tacked each other virulently. At the time of Galen there were six prominent sects. He refused to be a follower of any but remained independent in his thought choosing from all, those things which seemed to him proven by judgment and experience. Galen did not spare Hippocrates in his criticism of the early medical writers although he gives him credit for laying the foundation of true medical knowledge.

Galen was born in Pergamos in Asia Minor—a city in which there was a temple dedicated to Esculapius, about 130 A. D. in the reign of Adrian. He lived to be 100 years old. Galen's father was a wealthy, educated man, acquainted with literature, philosophy, astronomy, geometry, and architecture. It can therefore be assumed that he would be zealous in the education of his son, imparting to him all the advantages to be obtained in the educational centers known to the early Greeks. Galen studied in the School of Philosophers, of which there were many in those days, such as the Stoics, Academicians, Peripatetics and Epicureans, and then began the study of medicine at the early age of seventeen. In his youth he traveled much to acquaint himself with medicine in different countries, visiting Alexandria (in Egypt), Cilicia, Palestine, Crete, Cypress, and the Isle of Lemnos. At the age of twenty-eight he returned to the place of his birth to begin the practice of medicine. At the age of thirty-two he went to Rome, but was driven out in a few years by the jealousy of other physicians. During his stay Galen apparently made his name well known in Rome because he had become an intimate of persons of rank and acquired a large reputation. It is supposed that he was about thirty-seven years of age when he left Rome, returning to Pergamos. He was recalled by Marcus Aurelius and continued throughout the rest of his life in or near the Roman capital.

The writings of Galen have come down to us only in the Greek and Latin. It is probably known to but few that there is no complete English translation. The writings consist of nearly seven hundred books or treatises, of which several are lost. The original is in Greek; different portions have been translated into Latin and these have passed through numerous editions. The principal and best of the translations are those published at Venice by Juntas and at Basel by Forbinus. The writings of Galen are epitomized from the original translations by an American, John Redman Coxe, M. D., member of the Royal Medical Society, and his work was published in Philadelphia in 1846. He possessed Greek editions and also editions in the Latin, the third of 1556, the sixth of 1586, the ninth of 1609—all Venice copies of the Basel edition of 1549.

This book by Coxe is worth perusal by the physician who wishes to know some of the work of which we today enjoy the heritage. Coxe states that the Latin translators have divided the writings of Galen into seven classes. These classes are preceded by introductory books giving a general idea of the work to follow. The latter were expected to be used first by students and hence

\* Read before the Galen Club of Oakland, December 23, 1927.



GALEN

A statue of Carrara marble made in Italy in the year 1600 by Tullio Lombardi. Presented to the Barlow Medical Library, Los Angeles, by Dr. W. Jarvis Barlow in 1924.

they were called by Galen "Tyrones." The seven classes consist of: (1) Physiology, discussing the nature of the human body, its elements, temperaments, humors, structure, the anatomy and use of various parts. (2) Hygiene, the means of preserving health on air, food, drink, sleep, rest, motion, repletion, abstinence, affections and emotions of the mind. Much is said also of the powers of food, as healthy or unhealthy state of fluids; some mental affections are also considered; some gymnastic exercises. (3) Etiological, explanatory of diseases, their symptoms and causes. (4) Semeiotics, the division of medicine that is connected with the symptoms which distinguish particular diseases and the parts affected by which we are enabled to prognosticate. (5) Pharmacy, preparations of remedies. (6) Has to do with the methods of treatment, scarification, phlebotomy. (7) Therapeutics, pertaining to the practice of medicine, diet, remedies for each disease—principle and practice of surgery, embracing the treatment of fractures, luxations, and bandaging.

In the mass of material there are a few outstanding features which show the thoughts and principles that guided Galen, and some of his

actual research work. He emphasizes the importance of cultivating the mind in the quest of art rather than toiling in the quest for riches. In one passage, however, he is explicit in his discussion of fees, stating that this should be agreed upon in advance before undertaking a long course of treatment unless an emergency dictated otherwise.

He devoted a book to the subject of "A Good Physician Must Also Be a Philosopher," mentioning how important it is for medical men to have communion with learned people, thereby increasing their value in the profession. The discussion of sects of medicine is very extensive and Galen brings clearly to the fore the thought which is today the governing principle of medicine—that material from all the sciences should be used in our art and practice; that everything accepted should be founded on truth, that it should be useful and conformable to established principles. The mere authority or dogma of the individual is not acceptable except upon the foundation of investigation by experiment.

Galen is credited by Coxe as the first real anatomist. He attached much importance to this subject in the practice of surgery because in the extraction of darts, excision of abscesses and in war surgery it was important to know the location of the veins and arteries. He also gave great importance to the study of osteology. He differentiated sensory and motor nerves and Galen was well versed in brain anatomy, taking notice of the ventricles, the optic and cranial nerves up to the seventh pair.

In further praise of Galen, Coxe goes so far as to intimate that he should be considered the founder of anatomy and not the Brussels physician, Vesalius, in the sixteenth century. Vesalius endeavored to expose the mistakes of Galen, presenting extracts of his work, but it is stated by his enemies that in order to enhance his own worth he erroneously translated the quotations. It is even said that when a Venetian printer employed Vesalius to correct the anatomical works of Galen, both in Latin and Greek, he rendered the text more corrupt than before. He imputed to Galen anatomical knowledge only from apes and brutes. This Coxe believes is proven to be contrary to facts, and it is asserted that Vesalius used animals for his anatomy of the larynx, tongue, and eyes. Galen was particularly interested in dissection of the human arm and hand because he believed this intricate anatomical mechanism made possible man's development to a higher state of civilization.

A question that could give rise to much argument is brought forth by Coxe concerning the priority of the discovery of the circulation. In one book entitled "Is the Blood Naturally Contained in the Arteries" he mentions that all teachings heretofore held to the opposite and that they contained air. Galen tied an artery and then opened between the ligatures showing that it did contain blood. He contended that there was a passage of the blood from the veins into the arteries. In this conception he antedates Harvey and in a manner prepared the way for him as the discoverer of the circulation. Galen believed there was blood in

both veins and arteries, dissimilar in constitution. He maintained that the heart filled the arteries and that they pulsated only by the force of the heart.

In another book Galen treats of the respiration, stating that something was discharged of a noxious character, of a burned or carbonized nature. He noticed that one artery arises from the heart and ramifies through the lungs; and that one rises from the left ventricle, spreads throughout the body and pulsates in unison with the heart. He speaks of the junction of the arteries and veins by anastomosis. The one weak link in Harvey's theory was that he did not know whether there was a true connection between the two or an indirect one, that is, by absorption from the tissues to the veins. It was reserved for Malpighi four years after Harvey's death to demonstrate the capillaries. Galen gave an accurate description of the valves of the heart. He knew the influence of the right side of the heart and the arterial character of the blood in the pulmonary veins, and the venous character of the blood in the pulmonary artery.

This does not in any way detract from the honor bestowed upon Harvey as the discoverer of the circulation. The resurrection of buried knowledge may be as important to the progress of science as the original work. It is interesting, however, to realize that our science goes back many centuries and that ancients were correct in many of their assumptions.

In the field of surgery and treatment, Galen believed more in assisting the natural forces of the body, claiming that nature brings about cures, the physician only supplementing her efforts. He relied much upon diet, baths, exercise, as well as upon the crude pharmaceutical concoctions that originated during his time.

Anyone interested in medical history will enjoy the perusal of Galen epitomized by Cox, and those who are not so minded will undoubtedly have their interest aroused. It is wholesome for us to appraise our own knowledge and usefulness in the light of the past.

Livermore Sanitarium.

## CLINICAL NOTES, CASE REPORTS AND NEW INSTRUMENTS

### CONGENITAL HEART DEFECTS

WITH REPORT OF AN UNUSUAL CASE

By H. E. BUTKA, M. D.

Los Angeles

CONGENITAL heart defects and abnormalities are relatively frequent, ranging from the common patent foramen ovale to the less common defects in the structure of the heart and in the blood flow. The symptoms accompanying the various cardiac defects are surprisingly few, and it is not uncommon to find an anatomical condition which at first thought would seem to be inimical to life, giving very few subjective symptoms. The discovery of a defect awaits a careful study of the patient or frequently the pathologist's report

at autopsy. Phillips,<sup>1</sup> Holman,<sup>2</sup> Reuben,<sup>3</sup> Steffen<sup>4</sup> and others, have discussed the various congenital malformations and anomalies. However, my failure to find in literature a description of an anatomical defect similar to that present in this case, and the unusual complications prompt me to present the following:

#### CASE REPORT

Patient R. W. S., age 31, American, machinist.

**Personal History**—Father died of diabetes. Patient suffered from measles, pertussis, and influenza. Habits were excellent. He worked quite hard and had suffered no loss of weight. Patient had complained of vertigo, palpitation and fatigue, and a considerable discharge from the nose each morning. A further study of patient's history revealed that he had suffered frequently with sore throat and colds. He had had "heart trouble" all his life, with pneumonia at the ages of 5, 12, and 19. He had also an attack of rheumatic fever six or seven years ago. Heart symptoms became worse at each attack.

**Present Complaint**—Patient entered White Memorial Hospital clinic May 7, 1927, complaining of pain over right eye, sore throat, and difficulty in talking. This pain over the right eye began suddenly about one week previous, and was of sharp and stabbing character but disappeared at night after sleeping. It was worse when the head was bent over, and at the time of examination the pain was constant and severe. The throat had become sore and the patient was hoarse.

**Physical examination** revealed a middle-aged man, apparently quite sick. Temperature, 98.8; pulse, 74; blood pressure, 80 systolic; weight, 150 pounds. The skin was slightly yellowish and the eyes revealed some jaundice. The breath was fetid, the gums were red, the tongue was coated, and the tonsils were enlarged and reddened. There was a whitish exudate over the surface of the tonsils and pharynx.

The phalanges were enlarged and club-shaped, and the nails showed marked cyanosis. There was also marked cyanosis of the ears, lips, and extremities. Examination of the heart region showed a diffuse apex beat in the sixth interspace, two centimeters to the left of the midclavicular line. There was a marked thrill transmitted to the axilla and over the sternal region; and a murmur accompanying the first sound which was apparently split at the apex, and was heard in the aortic and pulmonary areas.

Examination of the nose and throat revealed a definite exudate covering the tonsils, larynx, and epiglottis. X-ray report of the sinuses disclosed an involvement of the right frontal and left maxillary sinuses. He was then referred to the heart clinic for study as to advisability of the removal of the tonsils. The diagnosis returned was mitral stenosis and insufficiency; and tonsillectomy under local anesthetic to be followed by two weeks' rest in bed was advised.

**Treatment**—The tonsillectomy was done under local anesthesia, butain being used, the total time required being seven minutes. Following the tonsillectomy the patient was removed to the White Memorial Hospital and there suffered a rather severe hemorrhage. This was accompanied by shortness of breath, palpitation of the heart, and severe pain in the chest.

Following his entry into the hospital his temperature began to rise from 98 degrees on the 11th to 104 degrees at noon on the 12th. His blood count showed 100 per cent hemoglobin; 5,670,000 red cells; and 14,400 white cells; with a differential count of 79 per cent polynuclears. Consultations were held and a diagnosis of lobar pneumonia was made. All efforts at stimulation of the heart failed and the patient continued to grow worse, becoming delirious, and dying on the morning of May 13.

The autopsy performed immediately after death revealed the following:

Internal examination: Thorax upon opening revealed no free fluid in the pleural cavities and no





View of left ventricle showing mitral and aortic valves. Note the small size of the aorta.



Posterior view of heart, showing left auricle resembling an auricular appendage without pulmonary veins.



View showing patent foramen ovale, tricuspid valve, pulmonary artery and the right ventricle.

adhesions. The right lung was voluminous and doughy in consistency. No consolidations were noted. The left lung was voluminous and there was found a consolidation of the lower lobe, especially of that portion overlying the pericardium.

**Heart:** Approximately 50 cc. of brownish red fluid was found in the pericardial sac. There was quite a marked ecchymosis. The heart occupied the greater part of the left chest, measuring 18 x 13 x 9 centimeters. Tricuspid valve was 17 centimeters in circumference. Pulmonary valve was 11 centimeters in circumference. Some sclerosis was present on both valves. The right auricle and right ventricle were markedly dilated. The myocardium of the right ventricle measured 1.5 cm. in thickness. The cavity of the left ventricle was small and there was no stenosis of the mitral valve. The left auricle was small consisting mainly of the auricular appendage. No blood vessels were found opening into the left auricle. The foramen ovale measured 5 centimeters in diameter and was divided by strands into four sections, three of which were open and about equal in size, each measuring approximately 3 centimeters in diameter. The entire supply of blood to the left side of the heart must have passed from the right side through this foramen. The aortic valve was 6 centimeters in circumference. Two of the aortic cusps were adherent because of an inflammatory growth. A careful study of the auricles revealed only the venae cavae entering the enlarged right auricle. The pulmonary veins opened into the superior vena cava very close to its junction with the auricle.

**Abdomen:** There were dense adhesions about the gall bladder binding it to the pyloric portion of the stomach and the first portion of the duodenum. The transverse colon lay deep within the pelvis.

The appendix was 10 centimeters long and revealed some dilatation of the distal end. The serosa was congested. Upon section there was found a quantity of pus in the distal 2 centimeters, with beginning necrosis of the mucosa. There were adhesions and subsequent stenosis just above this area.

The liver was much enlarged and extremely dark in color. On section there was marked lobulation with changes that suggested fatty degeneration and chronic passive congestion.

The spleen was enlarged, bluish in color, and extremely firm in consistency. On section there was definite fibrosis and lack of the usual markings.

The kidneys were large and firm. Capsule stripped easily though leaving some scar areas. The usual ratio of cortex to medulla was present. There appeared to be some cloudy swelling.

**Stomach:** The mucosa was congested. The small

and large intestines were negative. The pancreas, bladder, and prostate were negative.

#### *Cause of Death*—Lobar pneumonia.

**Contributory:** Congenital malformation of the heart.

**Anatomical Summary:** (1) Lobar pneumonia, left lower lobe; (2) acute purulent appendicitis; (3) congenital malformation of heart; (4) chronic cholecystitis with adhesions; (5) chronic passive congestion of liver, spleen, and kidneys.

#### COMMENT

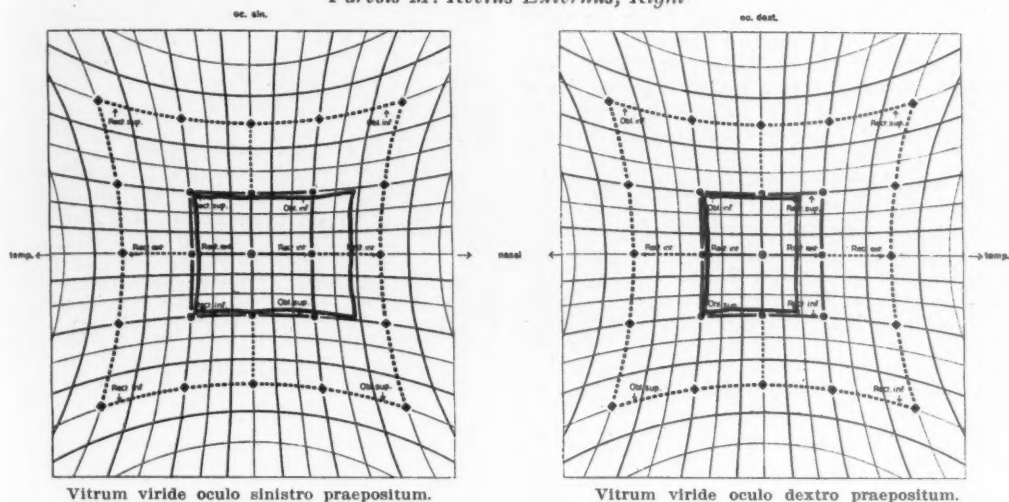
The patient's first entrance to our clinic was occasioned by a sinusitis involving the frontal and maxillary sinuses, with later involvement of the tonsils. After the subsidence of the acute symptoms the tonsils were removed. The large venous spaces due to the cardiac anomaly allowed a severe postoperative hemorrhage. The lessened resistance and the operative wound at a time when virulent bacteria were present in the nose and throat led to the development of the fatal pneumonia and the accompanying acute appendicitis.

A careful survey of the findings in this case led us to conclude that this patient suffered from a congenital defect causing the entire blood supply to return from the lungs to the right side of the heart along with the venous blood from the superior and inferior vena cava. A portion of this blood passed through the patent foramen ovale and entered the systemic circulation. The symptoms caused by this condition were sufficiently mild to permit of the patient's growth to adult life; ability to earn his living by a life of moderate activity at manual labor; and to support a wife and child.

312 North Boyle Avenue.

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*Paresis M. Rectus Externus, Right*

THE HESS CURTAIN (OR COÖRDIMETER) AS  
AN AID IN THE DIAGNOSIS OF PALSIES OF  
THE EXTRINSIC OCULAR MUSCLES\*

By DOHRMANN K. PISCHEL, M. D.  
San Francisco

THAT the diagnosis of palsy of the extrinsic ocular muscles is troublesome is shown by the number of the methods employed in making this important diagnosis. Several types of apparatus have also been devised in this connection. The basic principle of all has been the differentiation of the images seen by the two eyes and the notation of the relation they bear to each other. The best known system is that of the lighted candle and colored glass held before the eye. In using this system the patient is called upon to state where and how far apart the images are—a truly difficult task in many cases. When the test is completed there is no accurate record of the result.

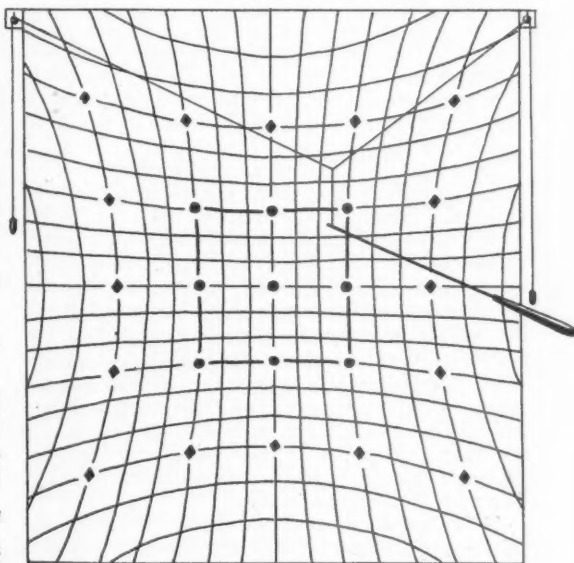
A system has been devised for the graphic recording of these results. With the patient sitting before a screen, the positions of the images are then projected on the screen, recorded, and can be transferred to paper for a permanent record. But, even with the positions of the images recorded, the diagnosis of which particular muscle is involved, is still to be made. For one working in a large clinic where these muscle palsies are frequently seen, the interpretation of these results is easy. Not so for the man in private practice.

GRAPHIC DIAGNOSIS OF INVOLVED MUSCLE—APPARATUS DEVISED BY PROFESSOR HESS

Several years ago Professor W. R. Hess at the Physiological Institute of the University of Zurich, devised an instrument which he calls a coördimeter, which not only allows the making of

a graphic record of a palsy, but also practically diagnoses the muscle involved.

The apparatus consists of two parts: the first, of a black felt curtain and the second of spectacles with different colored lenses. The black felt curtain (Fig. 1) is marked off by fine red lines into rectangles, so drawn that they are 5 degrees apart if measured from a point 50 centimeters from the center of the curtain. At the intersection of the vertical and horizontal 15-degree lines, are placed round red spots. Similar spots are placed 15 degrees from the center on the vertical and horizontal meridian. These eight spots outline a square. In addition to the eight round red markers placed on the 15-degree lines there are eight additional square red markers placed on the 30-degree lines. These enable one, if one is so desirous, to make a test of the larger excursions of the eye. From the upper corner of the curtain



Curtain used in coördimeter of Prof. W. R. Hess.

\* From the Department of Ophthalmology, University of California.

\* Demonstration before the Eye, Ear, Nose and Throat Section, California Medical Association, at the Fifty-Sixth Annual Session, April 25-28, 1927.

are led two green threads to the loose ends of which are hung counterweights, while the other ends are joined together and fastened to a third thread coming from the end of a pointer. The junction of these threads makes a green Y and this Y is used as the point to be pulled around by means of the pointer to touch the various red marks.

The second part consists of a pair of spectacles with one lens green, of the identical shade of the green thread, and one lens red, identical with the red of the curtain marks. Through the green lens only the green thread can be seen; the red, the complementary color, appears as black and thus blends with the black of the curtain. Through the red lens, only the red spots can be seen. Thus the eye behind the red lens fixes, while the one behind the green can deviate without any stimulus to fusing of images.

In making the test in the case of paresis the eye behind the green lens deviates, so that what the patient actually does is to fixate with the one eye on a spot and then draw the green thread to the point on which the macula of the deviating eye is fixed. This point can be noted on a chart. Charts are furnished with two diagrams of the curtains on them, so that it is easy to enter the points. We use the left-hand one when the green glass is before the left eye, and the right-hand one when the green glass is before the right eye.

Having had the patient pull the green thread to all the spots with one eye fixing, we change the glasses and allow the other eye to fix, and repeat the tests. Then, on the charts, we join the marks with lines thus forming polygons. Given the size and shape of the polygons, and a few simple rules to follow, we can read off the name of the affected muscle.

**Rules**—The smaller polygon indicates the affected eye. The polygon shows a shrinking of the field in one area. In this area is printed the name of a muscle which is affected, and we read it off and the diagnosis is made.

Figure 2 shows a sample chart, with the points to which the thread has been pulled marked out. There is a loss of field in the right-hand diagram, and here can be read the name of the affected muscle, *M. rectus externus dexter*. The diagnosis is thus made.

In conclusion, I want to repeat that here we have a means of diagnosing paresis of the extrinsic ocular muscles which has the following important advantages. In the first place, it is accurate; in the second it is simple. It does not require the cooperation of an intelligent patient. It does not require an experienced operator. Therefore it can be readily used by the physician who does not confine himself to eye work alone. And in the third place it gives an accurate permanent graphic record. Thus when we repeat the tests at intervals to see whether the paresis is improving, remaining stationary, or increasing, we have an accurate graphic record for comparison. This last is a most important feature.

This curtain can be obtained from the mechanic of the Physiological Institute at Zurich, Switzerland, and will be mailed on receipt of \$14.

490 Post Street.

## MUCOCELE OF THE APPENDIX\*

WITH REPORT OF TWO CASES

By DON D. WEAVER, M. D.  
Oakland

I WISH to report these two cases of mucocele of the appendix because of the extreme rarity of the condition.

**CASE 1**—Male; Japanese; age 30. Was first seen August 9, 1924, suffering from a dull aching pain in the right lower abdomen. Family and past history negative. Present trouble began about six years previous, with the same dull pain in the right iliac region. Pain has been recurrent at intervals until the present time. Pain and tenderness on pressure had increased during the preceding forty-eight hours so that the patient had been unable to sleep at night. Pain was made worse by exercise. History was otherwise negative.

Physical examination negative except in region of the appendix where there was marked tenderness on pressure, and a localized area of muscle rigidity. White blood count, 9400. Diagnosis: Subacute appendicitis.

Patient was operated upon at Oakland Central Hospital August 9, 1924. Under nitrous oxid and ether anesthesia the appendix was removed. The only point of interest in the operation was the enlarged appearance of the appendix. It appeared as a sausage-shaped cystic tumor about 9 cm. long by 2 cm. in diameter, and was attached to the cecum by a short cord-like pedicle about one-half cm. long. The serosa had reddened vessels markedly injected. The appendix was tensely distended and translucent when held to the light and was filled with clear liquid mucus. A few drops of pus had settled in one pole.

Pathological Report by Dr. Gertrude Moore—The specimen submitted is an appendix 8 cm. in length by 2 cm. in diameter. The organ has the general appearance of a well-distended sausage. The surface is smooth and glistening. The walls are 2 mm. thick. The cavity is distended with a clear, tenacious mucus. The lining membrane which lines the cystic cavity completely cuts off the outlet to the cecum. Microscopic examination shows the wall to be made up of an outer coat of flattened epithelial cells upon a fibrous connective tissue supporting structure with the greater portion of the wall consisting of fibrous connective tissue and a few non-striated muscle cells. The cells are of a type considerably lower than those usually found in this organ. Diagnosis: Mucocele of the appendix.

**CASE 2**—Mrs. C., age 43; height, 5 feet 5 inches; weight, 165 pounds. Came under observation in November, 1926, suffering from recurrent severe febrile attacks of an unusual nature but which I think have no relation to the condition here reported. History otherwise negative.

Physical Examination—The head, neck, chest, and upper abdomen were negative. Lower abdomen: In the midline of the lower abdomen a firm rounded tumor mass was felt which gave the impression of a three months' pregnant uterus. Apparently attached to the upper pole of this mass an elongated, firm tumor was felt extending upward and into the right iliac fossa. This mass was freely movable. Vaginal examination: The vulva presented a discharging sinus from an old Bartholin's abscess. Perineum normal but bathed in mucopurulent discharge. Cervix large and hard; marked endocervicitis with erosion. Bimanual examination revealed the uterus enlarged to the size of a four months' pregnancy; very hard to the touch but apparently not nodular; firmly fixed in the pelvis. An elongated firm mass which was freely movable was felt extending upward into the right iliac

\* Read before the Fabiola Hospital Staff, Oakland, August 30, 1927.





Mucocoele of the appendix.

fossa, and was diagnosed as an ovarian cyst. Pre-operative diagnosis was fibroid uterus and ovarian cyst.

Operation—December 14, 1926. The cervix was thoroughly cauterized; the uterus was explored. Sinus in the vulva left until a later date.

When the abdomen was opened the pelvis was found completely filled with a large fibroid uterus—intramural fibroids covering the uterus ranging in size from a pinhead to  $1\frac{1}{2}$  inches in diameter. Wedged tightly in the pelvic cavity were two ovarian cysts, the left being 2 inches in diameter and the right about 3 inches. A complete hysterectomy was performed, the ovaries being removed first, to clear the field for the removal of the uterus. The appendix was found floating freely in the right iliac fossa as an elongated cystic mass 2 inches in diameter and 5 inches long; the meso-appendix was atrophied; the peritoneal and muscular coats at the junction of the appendix and cecum were greatly distended. The mucous coat which formed the cyst lining could be felt projected into the lumen of the cecum for about one inch. A circular incision was made around the base of the appendix extending to the mucosa, after which the cyst was gently shelled out from the cecum; the mucosa lining the cyst cavity having no connection with that of the cecum. Raw surfaces were peritonealized and the abdomen closed. Recovery was uneventful.

Pathological Report by Dr. Gertrude Moore—The specimen submitted is an appendix 11.25 cm. in length having an average diameter of 4.4 cm. The organ is rather pointed at its distal extremity but blunt and devoid of serosa at the proximal end, the whole forming a perfect sac distended with mucus. The surface vessels are large and dilated. Here and there are foci of torn adhesions on which are interspersed pinpoint to pinhead elevations, all of which are calcified. All of the coats of the organ are thinned, but the atrophic process is most marked in the mucosa. Accumulated in small masses on several points on the inner surface and embedded in a thin, tenacious mucus, are fishegg-like bodies most of which are calcified. The contents consist of a glairy, very tenacious mucus.

#### COMMENT

Mucocoele of the vermiform appendix is a rare and interesting condition, being first described by Virchow in 1863, since which time 168 cases have been reported in literature. The more rare variety of the same condition is the fishegg or globoid body type of which only seven cases have been reported.

The etiology of mucocoele of the appendix is rather obscure, but the following underlying con-

ditions are, according to Elbe, essential for its development:

1. A slowly stenosing process at one or more points in the lumen. A rapid stenosis would produce gangrene.

2. A sterile lumen must be present either distal to or between the points of stenosis.

3. There must be an actively secreting mucosa or at least one in which the secretion is more rapid than the absorption. Also some change in the mucosa whereby mucin is transformed into pseudomucin.

4. In the fishegg or globoid body form of mucocoele the mucoid material is also secreted from the crypts forming small round bodies which are made up of pseudomucin and resembling fish spawn. This varies in size from the head of a pin to one centimeter in diameter and may at times become calcified; which was the condition found in one of the cases reported here.

Certain types of mucocoele are considered potentially malignant because of the fact that rupture may result in a reactionary peritonitis of the progressive type known as pseudomyxoma peritonei. Mucocoele of the appendix is the only cause of this condition in the male. In the female it may result from a ruptured ovarian cyst.

The symptoms of mucocoele that present are much the same as those of any chronic inflammation of the appendix. The majority of cases reported, however, were of patients with symptoms which were discovered accidentally, or in the course of abdominal operation, or at autopsy.

The chief complications to be feared are intussusception, invagination, volvulus, rupture, and intestinal obstruction; and for these reasons, as well as for relief of symptoms, operation is indicated.

The two cases which I have reported here have several interesting features in distinct contrast to each other. In the first patient the entire appendix appeared as a large distended sausage-shaped mass except for about one-fourth inch of the proximal extremity at its junction with the cecum. Here the stenosis involved all of the coats of the appendix. They were contracted down into a short cordlike structure about one-fourth inch long, from the end of which the mucocoele, devoid of all mesenterial attachment, floated freely in the abdominal cavity like a balloon on a short string.

In the second patient the stenosis apparently affected only the mucous coat, the remaining coats being greatly dilated and continuous with those of the cecum. The cyst in this patient protruded into the cecum for at least one inch, invaginating the cecal mucosa ahead of it. Undoubtedly the recent enlargement of this cyst had been intracecal, the thin mucosa at this point offering much less resistance to intracystic pressure than the remainder of the appendix, where all of the coats being intact, there was more resistance. If this condition had progressed it probably would have terminated eventually in rupture into the intestine, or in intestinal obstruction.

1904 Franklin Street.

## BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An open forum for brief discussions of the workaday problems of the bedside doctor. Suggestions for subjects for discussion invited.

### ANEMIA

**Robert Pollock, San Diego**—At present it seems that anemia may be practically divided into two groups, those in which liver acts as a specific and those in which it does not. The former group represents the so-called "pernicious anemia," a dangerous disease attacking people in middle life and later, and characterized by achlorhydria always, characteristic changes in the blood picture usually, and degenerative changes in the spinal cord frequently. Previous to the medicinal use of liver as advised by Minot, this disease ran an up and down course for a few years and eventually terminated fatally. The liver treatment, soon to be available in the form of an easily administered soluble powder, promises to hold the disease in check indefinitely, but the damage to the stomach and the spinal cord remains.

The second group in which the liver does not seem to exert a specific action is made up for the most part of anemias secondary to some known or perhaps undiscoverable disease. In these cases, besides a diet rich in all essential food elements, repeated transfusions with well-matched blood and the use of arsenic are our best therapeutic agents while we diligently search for and correct the primary cause. In these secondary anemias the blood can become so impoverished as to cause death if treatment be not early applied and vigorously pursued. It behooves us therefore to treat with respect all cases showing the clinical symptoms of anemia, such as pallor, shortness of breath, slight edema and symptoms of stomach disturbance.

If on examination of the blood the anemia is not of a well-defined type and only 20 per cent below par, it will be wise to hold the patient under observation until the blood picture returns to normal and the clinical symptoms have cleared up. Of course it is even now a little early to pass upon the final effects of liver treatment. It may prove to have greater value in some of the secondary anemias than at present is believed. It is possible that some cases of so-called "aplastic anemia" fall under still a third group, neither pernicious nor secondary.

Fresh impetus has recently been given to the study of the anemias. Let us profit by this and renew diligently the study of all our patients who present the suggestive clinical symptoms of early anemia. The cause of pernicious anemia remains still unknown. In many cases of secondary anemia treated most carefully it may be difficult to find the cause. In the face of severe anemia do not waste valuable time in extensive laboratory

proceedings to satisfy only your academic interest in classification. Treat the anemia promptly and vigorously along the lines now clearly outlined for us.

\* \* \*

**René Bine, San Francisco**—My "views on the subject of anemia" are very similar to those of Doctor Pollock. Every patient presenting symptoms attributable to anemia, or whose blood, even in the absence of such symptoms, shows evidence of anemia, requires treatment. The treatment of anemia, as Doctor Pollock states, should begin immediately, and the patient studied until the primary cause is discovered. If the primary condition responsible for the anemia can be detected, and if it can be eliminated, well and good. If not, the patient will have to submit to repeated observation over a period of years.

It is a curious fact that during the past twenty years true chlorosis seems to be rapidly diminishing in frequency. Probably this is due in part to improvement in living conditions in the home, in the school, and in the entire community. This includes better ventilation, more sunlight, better food, and healthier working conditions. The working classes are no more deprived of the iron and the vitamins in their diet than of their movies, and the day of the "slavery" is, we hope, gone forever. Automobiles and the open country render "sunlight" more available.

Liver, the new "specific," is being used quite extensively. In most cases the results are striking. Time alone can tell whether by its use "pernicious anemia" can be held "in check indefinitely."

The use of the ultra-violet ray is also increasing, but we will require a great deal of careful study to appraise its value in these cases.

Absence of hydrochloric acid in the stomach contents is a common symptom of pernicious anemia, but certainly not its cause. It may exist for years without anemia, but we have always felt that these patients need careful watching, and that we should instruct them as to diet and mode of living just as carefully as we do those patients who are already anemic. Many patients have been under observation because of recognized achylia for over ten years (one for fourteen) before anemia developed. On the other hand there are also cases of achylia that have been watched for over twenty-five years without developing any symptom or sign of anemia. But we have no way of foretelling the future of these patients. When in

doubt, play trumps. Let us hope that liver remains a trump, but let us not forget that a single trump does not win the game.

\* \* \*

**F. F. Gundrum, Sacramento**—"A deficiency of the blood in the living body, either a diminished quantity (as immediately after hemorrhage when it is called oligemia and is the opposite of plethora) or a diminution of some important constituent of the blood, especially hemoglobin. It then presents itself in the form of oligocythemia, achrocythemia, microcythemia or hydremia, simply or combined." This definition brings out, I think, the reason all clinicians should be glad of the renewed interest in the subject of anemia. We are all too apt to fall into the habit of considering anemia a diminution in hemoglobin only. An impoverishment of the blood may, and no doubt does, frequently include deficiencies other than that of the coloring matter.

Anemias are relatively common in clinical practice. They are conveniently divided into those plainly secondary to some other condition and those whose origin is by no means so obvious. Addison's anemia is not to be classed in either of these groups, being well established as a disease entity, with anemia only one of the outstanding features. Gastro-intestinal and nervous changes are equally important in the diagnosis and without them the clinical picture of this disease is not complete.

Many of the common anemias are due to insufficiencies of iron or arsenic or both and are promptly relieved by the use of these drugs. Other patients with a similar blood count show very little improvement under this form of therapy, but will recover satisfactory blood values quite promptly upon rest and overfeeding while others do best with the addition of light therapy. There seems to be a fairly well recognizable type of individual who presents a picture of secondary anemia and asthenia upon whose blood picture no treatment seems to have very much effect, and whose physical state affords no easy explanation.

\* \* \*

**F. J. Lee, Los Angeles**—Anemia in its severe form is a very interesting condition largely because of its association with so many different diseases. It develops most often secondary to disease in other parts of the body. Perhaps anemias differ only in degree (cytologically).

One must be familiar with the clinical and laboratory findings characteristic of anemia due to increased blood destruction, in contrast with anemia due to deficiency formation of blood. Then the diagnosis of the presence of anemia is not difficult. However, it is of very little value unless an attempt is made to discover the cause of the anemia. Check and recheck all cases of anemia rather than accept a diagnosis of undeterminate anemia. Early diagnosis is the keynote in the

treatment of all anemias. A knowledge of cytology is of value, for the blood picture is a mirror of the bone marrow and its reactions.

Where a definite causative factor is found, attempts to right the condition are made. Aided by transfusion, by a liberal diet, rest, and a few drugs, one can tide these cases over until the blood-forming organs replace the deficiency.

In the treatment of the so-called primary anemias the following outline is of value:

Treat all the factors possible that directly or indirectly retard the blood-forming organs: such as (a) oral and dental sepsis; (b) intestinal parasites; (c) cases of called pernicious anemia with syphilis; (d) cases of anemia of pregnancy.

Give rest in bed if anemia is severe—diet, well balanced—ride no hobbies; and liver, raw, cooked—"fraction."

For the glossitis, nausea, vomiting, diarrhea, give one-fourth pound of liver in the morning and another one-fourth pound in the afternoon. Either with the meals or at, say 10 a. m. and 4 p. m.

Liver can be taken raw easier than cooked in many instances. Grind it up and serve in soup or orange juice.

Liver is a specific in cases of so-called pernicious anemia, if given in sufficient quantities and continued at the proper dosage.

The problem in liver treatment is to find how much of the liver or fraction must be given daily to get a change in the clinical symptoms and the blood picture. This will vary with the patient. The average return to a normal blood picture takes from one month to six weeks (clinically).

The patient will use from four to six vials of the fraction during the first week or until the blood picture is normal. Then one may find that two or four vials a week is sufficient to keep the blood picture normal.

Laboratory aid is essential to accurate treatment. The young red cells, the so-called "reticulated cells," increase 20 to 50 per cent in the first ten days of treatment. A case that does not respond will not show this reticulated cell curve or increase of young cells. If such is the case we have probably missed the diagnosis and had better recheck our findings.

(Note: The best stain for "reticulated red cells" is a cresyl blue. Count 1000 red blood cells to find the percentage. Normal blood has about one per cent of reticulated cells.)

The neurological cases—posterolateral sclerosis—will not respond to liver treatment. Nerve tissue already damaged is beyond repair. All we can hope for is to hinder further damage.

Drugs are of little value in cases of pernicious anemia. Even dilute hydrochloric acid can be discarded.



## California and Western Medicine

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which it has been proposed, should be created by the next legislature. This subject was discussed editorially in the March issue of this journal.

\* \* \*

Of state medical meetings it may be said that rarely can days be so filled with experiences of pleasure and profit, as are these hours which are spent in exchange of fraternal and good fellowship greetings, in the intervals between the more serious scientific work with one's fellow physicians.

Some of our members have attended these meetings year after year, and in so doing have made friendships with colleagues throughout the state. That is why these members find so much additional pleasure in these reunions; and why they always may be counted upon as being among those who are almost certain to attend.

\* \* \*

It is good to be with one's fellows in such an annual check-up on the scientific advances of the previous twelve months, and it is also profitable in every way to commune in social manner with colleagues coming from all parts of the state. If you have not gotten the annual convention habit, this will be a good year to begin. Our colleagues at Sacramento promise that we shall not be disappointed in the fifty-seventh annual session.

## EDITORIALS

### THE ANNUAL SESSION OF THE C. M. A.—IN APRIL AT SACRAMENTO

The fifty-seventh annual session of the California Medical Association will be held in Sacramento, commencing Monday, April 30.

Members of the Association may well pause a few moments in their daily routine of professional work to ask themselves whether it would not be very much worth the while to make an effort to be present at this meeting. An excellent scientific program has been prepared and our colleagues at Sacramento promise also some very interesting entertainment.

\* \* \*

Delegates and alternates to the House of Delegates have a special obligation in reference to this meeting because of the very important matters which will come up for consideration.

The proposed revision of the constitution and by-laws by means of which it is hoped to have rules of government in line with the best development, will demand the serious attention of the delegates.

Among other business the decision must be made as to whether or not the California Board of Medical Examiners shall continue in its present form, or in one sense lose its identity and peculiar relationship to the medical profession, by being merged and otherwise changed as one of some sixteen other California licensing boards, in a Professional Standards Department of California,

### THE PROTECTION OF HARD-OF-HEARING AND DEAF CHILDREN

Children who have diminished hearing acuity in either ear are often handicapped throughout life, when such defects are not discovered in time; and the children given an opportunity to compensate for such defects through lip reading and modern voice-building instruction. A child suffering from hearing defects has its future handicapped, not only because of the personal annoyance resulting from the existence of this special organ deficiency, but also because the poor hearing creates inattention during the developmental and school years; and makes for a child far behind his fellows in capacity to hold his own not only in the schoolroom, but also in later years in the workshop, store or other activity. In short, such a hearing defect, if not remedied, may subject the unfortunate individual to a much lower place in the social and economic scale than would otherwise be the case.

\* \* \*

It has been shown that children with hearing defects should come under training observation, if possible, not later than the age of two years, so that parents may take up certain training procedures in the several years before school is attended.

Throughout the country, children with such defects are unfortunately first met with in the schoolroom and the first attempts at the correction of defects are then made, and then only too often in haphazard fashion.

An interesting presentation of the work which is done in some of the California schools was given by Rodin in the November, 1927 issue of this journal, and the methods there outlined are

in a general way those which have the serious consideration of up-to-date school departments throughout the United States. Rodin called attention to the fact that in the San Francisco schools about one out of every fifty children in the age period nine to sixteen had an impairment of hearing of sufficient amount, to make desirable the giving of lip-reading instruction.

\* \* \*

This subject has long been the object of study by both the medical and teaching professions. The last California legislature of 1927 passed a measure known as Senate Bill 342, which required "certain reports to be made concerning children with impaired hearing." Since the language of that act specifically applies to members of the medical profession, it would seem proper to quote its first section, which reads: "It shall be the duty of every attending or consulting physician, nurse, parent or guardian having charge of any minor who is totally deaf or whose hearing is impaired, to report at once to the superintendent of schools of the county, or incorporated city, or city and county of which said child is a resident, the name, age and residence of such minor."

There are three other sections. The object of the four sections of the bill is to make it possible for the state, through the persons enumerated in Section 1, to have an early contact with these children who have these hearing handicaps. Thus the proper educational measures may be instituted at the time when they will be of most value to the child, both for its school day life and its later adult years so that it may be given a proper chance to become a useful and happy citizen.

The attention of the members of the California Medical Association is called to this recent law, and every physician is urged to give full cooperation in this beneficent and much-needed work.

#### IN THEIR INITIAL EXPLOITATION, WHY DO NEW CULTS OF HEALING HAVE SO MANY GRADUATES?

From the beginning of history, cults of healing have come and gone. They will continue to come and go, but their advent and their demise could be made much less inimical to the public health if decent and proper educational safeguards were insisted upon by the state.

In our own group of non-sectarian practitioners of the healing art—the so-called regular or old school group—we lay down as a fundamental principle in the practice of the art and science of medicine, that we start out with no academic notions, hypotheses or dogmas, which would lay down beforehand the nature or the treatment of diseases.

Each of us is at liberty and is expected to utilize all facts and measures which the advances of medical or related sciences, from day to day, may bring forth.

This is the only rational approach to an understanding of any science, and because we support that principle we maintain our place as a learned profession not only in all the recognized universi-

ties of our own and other civilized countries, but also among the great masses of lay citizens of these respective lands.

Starting as we thus do with this concept of obligation to keep abreast of all advances which the industry and researches of all our fellows may bring forward, it is easy for us to go one step further in this broad knowledge which we have of the science to which we pay allegiance. We therefore believe and hold that for a proper understanding of the intricate chemical, mechanical and biologic phenomena that are met with in the human body, an adequate amount of education and training to understand and to interpret these phenomena should be required of every citizen who seeks a license from the state, so that he may be permitted to go before the public as a presumably safe and competent practitioner of the healing art.

\* \* \*

It is just herein that our group differs so much from modern-day cults of the healing art, who utilizing modern-day press propaganda and other commercial publicity methods, are able to carry on intensive campaigns for the spreading of their teachings, so that many lay citizens who have only a superficial knowledge of the nature of disease, and of the heavy expense, hard work and years of study that is necessary for its understanding, fall a prey to these later day healing art propagandists.

\* \* \*

It is most significant that practically all of these recently formed healing art cults, during the first years of their existence, secured a very large number of their students by having little or no requirements as to preliminary education, and very diminished quantitative and qualitative standards of professional training.

It is not to be wondered at that such groups found it easy to gain many disciples who aspired to graduate as "doctors" in their groups. For with little more than a reading, writing, and arithmetic requirement, and a comparatively small amount of money for a one or two-year term, in a day or night course curriculum to secure a so-called professional education, these cults were able to reach hundreds and thousands of prospective students under such conditions.

These cultist groups have had their largest growth in the last quarter of a century. It is during this same period that the regular profession has been demanding higher and higher standards of preliminary education and of professional training.

Today in our own and other states, for our own group graduates, a full four-year high school education, two years of collegiate liberal arts work, four years in a medical college and at least one year of hospital internship, all to be taken in accredited high schools, colleges, medical schools, and hospitals measuring up to an accept-

able standard, may be said to be the almost universal standard of our minimum educational requirements.

\* \* \*

As we look back at the Carnegie Institution and Flexner reports, which had so much to do with creating a demand for these higher standards of professional training, it is to be regretted that we did not foresee that in permitting to go out of existence medical schools of many years of honorable existence and long lines of honorable and efficient graduates, we were making it possible for cultist groups to flaunt themselves before the public and in high-sounding language promulgate the advantages of their therapeutical measures; these schools at the same time preparing the way for hosts of persons with little or no proper preliminary education, to acquire a degree of "doctor" in this or what not, and be eligible for legal licensure as practitioners of the healing art, as much so as those who had spent years in preparation and training for the doctorate degree in medicine.

Here in California, as well as in other states, this chase for a professional degree on such a deplorable basis, still goes merrily on.

\* \* \*

Of course it is the public that pays for this inattention to adequate standards and, unfortunately, it is often that portion of our citizenship with lesser education and discrimination, whose members fall into the nets of such poorly trained practitioners.

Our group of the healing art—the non-sectarian or so-called regular or old school practitioners—does not object to a citizen reserving for himself the right to avail himself of any method or methods of healing which to such a citizen seem desirable.

Our group of practitioners does contend, however, that the state is blameworthy if it sanctions the licensing of any practitioner of the healing art, be he of our own or any other group, who has not had that proper preliminary education and professional training, that is presumably a necessary prerequisite to make himself a safe individual to hold himself before the public as a practitioner of the healing art; and very often in that capacity to hold in his hands the health, prosperity, happiness, and even the lives of the lay fellows who come to him when they are suffering from disease or injury.

\* \* \*

It is hardly conceivable in this day and generation that in a state such as California that a cross-section of the opinion of the citizenship of the state would give a majority opinion in favor of a preliminary education less than a full four-year high school course for every individual aspiring

to secure a license as a doctor in any phase or branch of the healing art.

The cultist schools and exponents profess to have that and even higher standards of preliminary education. They should not therefore oppose this minimum high school standard in case it were brought forward.

\* \* \*

In some states the recent basic science laws aim to utilize this sensible high school requirement as the minimum standard of preliminary education. These basic science laws were discussed in this column in the October issue of CALIFORNIA AND WESTERN MEDICINE.

Would it not be wise for the members of the California Medical Association to give the subject careful consideration? Can a more practical method of elevating the standards of all practitioners of the healing art be brought forward? It is our belief that, as the years go by, an increasing number of states in the Union will adopt this basic standard of preliminary education, and that California should take up the consideration of some such measure at an early day.

#### MEDICAL ALTRUISM

The president of the Santa Barbara branch of the American Association for Medical Progress, Mr. George E. Coleman, has issued a pamphlet entitled "Some Medical Discoveries of 1927" that has been distributed among its members and that is worthy of wide publicity. Under the News column of the Miscellany Department of this issue of CALIFORNIA AND WESTERN MEDICINE are published excerpts.

The altruism of the medical profession was never more strongly shown than is shown in this pamphlet. Each successful result has been obtained after months of painstaking research has been freely given publicity—simply that upon the foundation so laid further discoveries and advances may be made available for the benefit and betterment of mankind.

What a contrast to the secrecy that surrounds a commercial discovery—to the safeguarding through the patent office of the manufacture and use of any idea that may have a monetary value!

Research men who devote their lives to this department of medicine are deserving of highest honor and of loyal support from their medical confrères and from every layman who can understand and appreciate the disinterestedness of the work and the amazing results that they have obtained. Every reader of CALIFORNIA AND WESTERN MEDICINE should turn to the News column and review the medical accomplishments of the year 1927, on page 544.



# MEDICINE TODAY

Current comment on medical progress, discussion of selected topics from recent books or periodic literature, by contributing members.

## Pediatrics

**Measles and Hemotherapy**—Among the acute infections, measles has exacted a high toll among children. The rapidity of spread of the infection, due to the peculiar symptomatology, has stimulated scientific observers to seek the causative agent, that a serum for cure and prevention might be found.

The use of whole human blood has been mentioned in these columns<sup>1</sup> in the treatment of various conditions in pediatrics. The whole blood of adults or the serum of the blood of convalescent measles' patients has been used by several investigators with encouraging results, especially if administered in the first eight days after exposure.

Spencer, of the Willard Parker Hospital of New York,<sup>2</sup> has tabulated massed experience in the use of this type of serum. He reports that of 3721 cases so treated, 3237 were completely protected, 434 had modified measles, and only 50 had unmodified measles. In a series of twenty cases treated after the eighth day of exposure, 13 had modified and only 7 unmodified measles. These figures are well worth careful consideration, particularly in institutions for infants and children. However, in private practice without laboratory facilities, the obtaining of sterile serum from Wassermann-free convalescent patients, is only occasionally possible.

If measles occurs in a family of more than one child, the simplest method is to inject 10 or 15 cc. of the whole blood of the convalescent patient into other children who have been exposed. No typing is necessary and the question of Wassermann reaction is unimportant. Forbes and Green<sup>3</sup> report their results with that procedure. Inasmuch as the full amount of immune bodies is not complete inside of a week after the temperature is normal, this method would be of only limited value, perhaps only modifying the disease in those exposed and later infected. But it has definite value in lessening the severity of the disease and possibly the complications which frequently develop.

The dosage of convalescent serum is small, varying from 2.5 cc. for a child 5 years old or younger, and exposed within four days, to 10 cc. for the same age if exposed not over seven days previously. The treatment dose of adult serum for a child 5 years or under is the "serum or plasma from 30 to 60 cc. of blood." "This should be doubled for children from 5 to 10 years, and for those over 10 years the dose must be greatly increased." (Spencer). The above applies to a

family where one of the parents is used as the donor or other adult known to be Wassermann free. All adults, as a general rule, have had measles as children, hence they are supposed to have antibodies in their blood. It would be well to secure this information prior to taking the blood.

The blood can be used whole, but the bulk of 30 to 60 cc. or more, injected subcutaneously or intramuscularly, is necessarily painful, hence the recommendation to use the serum. However, the absorption is rapid and the loose connective tissue of the axilla or abdominal wall will accommodate large quantities of fluids. The addition of sodium citrate to check the clotting of the blood while it is being administered is recommended.

The use of commercial serums of animals inoculated with various bacteria which are supposed to cause measles is still in the experimental stage. Undoubtedly the time will come when we shall have such a serum, but until then we shall have to use the blood serum or whole blood of the human who has had the disease and recovered.

A. J. SCOTT, Los Angeles.

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## Cardiovascular Disorders

**Circulation in the Smaller Vessels**—Our knowledge of the function of the smaller vessels in certain inaccessible regions has been increased recently by several valuable observations, some of which confirmed and some disproved previous conceptions. It is important that such knowledge should be based on accurate findings, because of the recent interest in diseases of the peripheral vessels in both surgical and medical fields. The apparatus used for these observations embodied some recent developments in electrophysics.

Wearn, Ernstene, Barr and German, in Boston, made direct observations on the pulmonary capillaries. The number of capillaries functioning vary in proportion to the work thrown upon them and upon the systemic blood pressure. Especially interesting was the action of adrenalin.

which produced dilatation or increased number of open capillaries instead of the expected constriction as found in the peripheral arterioles.

The pulmonary circulation rate is being studied by Blumgart and Weiss of Boston. They inject radium emanation seeds into an arm vein and record their passage through the great vessels. Using the principle that ionized gas transmits a current and that radiation ionizes the gas, they appropriately located gas chambers over the greater vessels in windows in a lead screen on the chest wall, and recorded the currents passing through these chambers.

The circulation rate in congestive heart failure was found to be diminished as was generally believed. The causes of the cyanosis in emphysema was found not to be due to pulmonary circulation rate but rather to structural changes in the alveolar walls.

Pulmonary circulation rate measurement gives us a knowledge of the quantity of blood in the lungs, and suggests means of solving the cause of such problems as acute edema of the lungs.

The brain is another region where the vascular behavior has not been directly studied. Cobb, Forbes, and Wolff of Boston directly observed the capillaries and minor vessels on the surface of the cerebral hemispheres. They demonstrated that the caliber of these vessels was regulated by an intrinsic mechanism similar to the nervous and muscular vascular control found elsewhere in the body. Adrenalin caused sympathetic stimulation and vascular contraction as it did in other peripheral arteries. Other drugs influencing vessel caliber were likewise studied.

Velocity of the pulse wave in the peripheral arteries has recently been quite accurately recorded by Turner and Hermann of New Orleans. They used an ionizing helium lamp mechanism devised by Turner, which records currents produced by microphone reception of the wave. They thought that they were able by this method to dissociate the elements of pulse wave velocity, namely, artery caliber and elasticity as well as blood pressure, and to evaluate the functional efficiency of the peripheral arteries.

JOHN J. SAMPSON, San Francisco.

### Radiology

**T**he Status of the Roentgenologist—"Seeing is believing" is an old adage. Nowhere is this more easily exemplified than in medicine, for sight is relied on more and more in arriving at a diagnosis. Through the advent of the x-ray the hidden recesses of the body have been opened to inspection. As time has gone on, especially during the last decade, greater refinements in technique, associated with the study of correlated postmortem findings, has enabled us to visualize and recognize accurately certain pathologic processes not heretofore suspected prior to death. A complete evaluation of the advances in modern everyday diagnosis made possible through the aid of Roentgen's discovery is impossible, but it is

sufficient to say that the clinician who attempts practice of any kind without ready access to it is practicing under a very distinct handicap. Even the laity have been educated to the stage where they frequently request x-ray examination prior to treatment.

Early diagnosis of obscure diseases is an accomplished fact. McVicar of the Mayo Clinic, in speaking of carcinoma of the stomach, says: "In our opinion roentgenologic examination excels any and all other means of recognizing cancer early." The same is true of gastric and duodenal ulcers, colonic diverticuli, pulmonary conditions, bone disease, and others. Recently in a discussion before the Southern California Medical Society, Snure showed pregnancy of the ninth week, through demonstration of the hazy bony shadows of the fetus, before concrete evidence of its presence by the usual clinical signs. Of late, gall bladder visualization has opened new fields in the diagnosis and physiology of liver function. These are instances of the daily use of the x-ray. It enables one to visualize, but the interpretation of the visualized picture is more difficult. The taking of films and the production of shadow pictures has been so simplified that almost anyone can operate a machine, consequently findings are often interpreted by men who are not qualified to interpret. Faulty diagnosis is not so often due to failure of the action of the ray on the film as to misinterpretation of the picture taken. This is the reason for the radiologist. First of all he must be a good technician who knows the mechanics of his machines, and the physics involved in the production of shadows, for in some patients the work must be done with a ray of minimum penetration, while in others a ray of maximum penetration is necessary to bring out detail which will otherwise be missed. Next he must be well grounded in the medical sciences of anatomy, physiology and pathology, so as to know the normal and the abnormal in shadow form. Finally he must be a good physician to correlate symptomatology with demonstrated pathology, for every day he is called upon to interpret the shadows which he sees as normal or abnormal. Even with this groundwork, mistakes are made, for no two individuals are exactly alike anatomically, nor does pathology always duplicate itself in a second individual. Seeing is believing, but one must know what is seen before one can believe.

Granting that the roentgenologist has surmounted these limitations, he is, then, one of the "key men" of medicine today. He, with the clinical pathologist, confirms or rules out the diagnoses of his associates; he actually, and sometimes accidentally, demonstrates early and unsuspected lesions which have produced negligible or minimal symptoms. On his decision frequently rests the prognosis and treatment of the patient; without him diagnostic medicine would not be on the sound scientific basis that it is. The time has passed when he is a technician pure and simple. He is a consultant to all the specialties and should be looked upon as such.

Sir Humphry Rolleston in his MacKenzie Davidson lecture says: "It is natural that there

should be a wholesome rivalry between the pure clinicians and the radiologists analogous to that between the clinicians and the laboratory workers as to who shall be regarded as the decisive makers of the diagnosis; it is therefore important that clinicians and radiologists should be in constant touch and consult frequently on equal terms, each thus acquiring the special knowledge and perspective of the other. Like the bacteriologist, the radiologist should form part of the team for clinical practice and research, and should not be segregated in his department. The radiologist is the helpful colleague of the clinician, and they are both judged as regards their accuracy or mistakes by the conditions found on the operating table or in the postmortem room; it is therefore most essential that the radiologist should, like the clinician, follow through to final demonstration the cases on which he has expressed an opinion, and be imbued with pathological knowledge."

In the establishment of a section on radiology a year ago by the American Medical Association, cognizance was taken of this. From a technical standpoint the radiologist is a true specialist, but at the same time he is a clinical adviser to each of the severally recognized subdivisions of medicine. His practice does not come directly from the laity, but is essentially one referred by brother practitioners who send their patients for expert personal opinion.

ORVILLE N. MELAND, Los Angeles.

### Otorhinolaryngology

**Otitis Media in Small Children**—Examination of the tympanic membrane ought to be a part of the routine examination of all young children. Every pediatrician and otologist has had the experience of having a child held for observation, or treated for various conditions, discharge unexpectedly an amount of pus from the ear, immediately followed by a decided improvement of all other symptoms. Otitis media is frequently met with not only in infants, but in children old enough to talk and tell their troubles. Many of us have seen abscessed ears where no pain was complained of. These facts serve to impress us with the necessity for routine otological examination and with the fact that various symptoms referable to the nervous, respiratory and gastro-intestinal systems may be produced by acute purulent otitis media.

Dean McLierle under the caption of "Otitis Media in Infants," in the September issue of the *Annals of Otology, Rhinology and Laryngology*, very ably presents a convincing number of these cases, and especially of those showing gastro-intestinal disturbances. He points out the fact that it is quite possible to have a purulent mastoid infection with very little, if any, infection in the tympanic cavity; that the pus may be blocked off within the mastoid cavity, and the infection of the tympanum clear up. That this does happen occasionally, I am sure, for I have had

that experience; but if it is very frequent, I have been guilty of overlooking a goodly number. The gastro-intestinal system of the child is certainly delicately balanced and all pediatricians frequently see disturbances here associated with acute purulent otitis media. I believe we are inclined to think the abscessed ear a complication of the gastro-intestinal disturbance, when it is in fact the causative factor.

Alden and Lyman reported seventy consecutive autopsies on infants who had died from infantile atrophy and infantile diarrhea, and stated that suppuration of the middle ear was found in all the cases. Thirty cases had been diagnosed as acute otitis media in life, while forty additional ones were found at autopsy. Many of these little patients have mastoid involvement undiagnosed, with gastro-intestinal symptoms in which frequent slimy, greenish stools are present and profound dehydration obtains. I have seen cases where there was a spontaneous external rupture of the mastoid, and still the middle ear involvement was considered of secondary importance.

The question of diagnosis is not always easy in these little patients, at least in cases of mastoid involvement which require mastoidectomy. Examination of the tympanic membrane, which may be obscured by debris of the external auditory canal of a putty appearance, due to an infection of the skin of the auditory canal, is not simple. This must be thoroughly washed and wiped out, without making much pressure upon the tympanic membrane. Again the tympanic membrane may be, and frequently is, covered with a white layer of exfoliated epithelium that in itself is characteristic of acute purulent otitis media. It may not look red and inflamed and to the inexperienced eye is viewed as the normal tympanic membrane. In cases where mastoiditis is suspected, greater difficulty will be met even for the experienced otologist; but perhaps a fair working rule to follow would be, where an x-ray shows one or both mastoids cloudy, with one or both ears draining profusely for several days, without relief of symptoms, a severe mastoid infection is probably present, and if the gastro-intestinal or temperature symptoms are urgent, a mastoidectomy is indicated.

If the tympanic membrane has not ruptured or has not been incised, I believe it safe counsel to say when in doubt, sterilize the external auditory canal and thoroughly incise the tympanic membrane. If an occasional tympanic membrane is opened unnecessarily it will quickly heal if antiseptic precautions have been taken, and no harm will be done.

In view of the fact that gastro-intestinal and other symptoms are frequently the result of an acute purulent otitis media, we wish again to emphasize the importance of examination of the tympanic membrane as a part of the routine examination of all young children.

CLINTON A. BURROWS, Los Angeles.





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Minnesota

#### INVITED SPEAKERS

S. A. Kinnier Wilson, M. D., Neurologist to the King's College Hospital, University of London, will address the Second General Meeting on Wednesday, May 2, at 10 a. m. on "Sudden Cerebral Lesions." Doctor Wilson is also to speak to the Neuropsychiatry Section held in St. Paul's Church on Thursday, May 3, at 2:30 on "Narcolepsy."

H. Gideon Wells, M. D., Associate Professor of Pathology at the University of Chicago, will speak at the Third General Meeting on Thursday, May 3, at 10 a. m. on "Adipose Tissue"; and at the Fourth General Meeting on Thursday evening at 8 p. m. on "What the Layman Wants to Know About Cancer."

Ray Lyman Wilbur, M. D., President of Stanford University, will speak at the Second General Session on Wednesday, May 2, at 10 a. m. on "The Cost of a Medical Education."

Waltman Walters, M. D., of the Mayo Clinic, Rochester, Minnesota, will address the Second General Meeting on Wednesday, May 2, at 10 a. m. on "Acute Duodenal Fistula."

Charles S. Vivian, M. D., of Phoenix, Arizona, will speak on "Experience with the Colling's Electrotome" before the Urology Section, April 30, at 2:30 p. m.

Gunther W. Nagel, M. D., Mayo Clinic, Rochester, will talk on "Duodenitis" before the General Surgery Section on Wednesday, May 2, at 2:30 p. m.

Paul Arthur O'Leary, M. D., Assistant Professor of Dermatology at Mayo Clinic, Rochester, will speak before the Dermatology Section on "Four Years' Observation with Malaria Therapy in Patients with Neurosyphilis," on Wednesday, May 2, at 2:30 p. m.

# Program

THE FIFTY-SEVENTH ANNUAL SESSION  
of the  
CALIFORNIA MEDICAL ASSOCIATION

TO BE HELD  
at  
SACRAMENTO  
CALIFORNIA



APRIL 30,  
MAY 1, 2, 3  
1928

SENATOR HOTEL—HEADQUARTERS

## OFFICERS AND COMMITTEES, 1928

PERCY T. PHILLIPS, Santa Cruz, President  
WILLIAM H. KIGER, Los Angeles, President-Elect  
T. HENSHAW KELLY, San Francisco, Vice-President  
EMMA W. POPE, San Francisco, Secretary and Editor  
GEORGE H. KRESS, Editor  
HARTLEY F. PEAKT, San Francisco, General Counsel  
HUBERT T. MORROW, Los Angeles, Assistant General Counsel

### COUNCILORS

**First District**  
Lyell C. Kinney, San Diego (1930)  
San Diego, Riverside, San Bernardino, and Imperial Counties

**Second District**  
William Duffield, Los Angeles (1928)  
Los Angeles, Santa Barbara, Ventura, and Orange Counties

**Third District**  
William H. Bingaman, Salinas (1929)  
San Luis Obispo and Monterey Counties

**Fourth District**  
Fred R. DeLappe, Modesto (1928)  
Fresno, Kern, Kings, Tuolumne, Merced, Mariposa, Madera, Tulare, and Stanislaus Counties

**Fifth District**  
John Hunt Shephard, San Jose (1929)  
Santa Clara, San Mateo, San Benito, and Santa Cruz Counties

**Sixth District**  
Walter B. Coffey, San Francisco (1929)  
San Francisco County

**Seventh District**  
Oliver D. Hamlin, Oakland (1929)  
Alameda, Contra Costa, San Joaquin, and Calaveras Counties

**Eighth District**  
Junius B. Harris, Sacramento (1928)  
Sacramento, Amador, El Dorado, Alpine, Placer, Nevada, Yuba, Sutter, Sierra, Yolo, Butte, Plumas, Lassen, Mono, Inyo, Glenn, Colusa, Tehama, Shasta, Modoc, and Siskiyou Counties

**Ninth District**  
Henry S. Rogers, Petaluma (1929)  
Marin, Sonoma, Lake, Mendocino, Solano, Napa, Del Norte, Humboldt, and Trinity Counties

**Councilors at Large**  
Robert A. Peers, Colfax (1928)  
Joseph Catton, San Francisco (1929)  
George H. Kress, Los Angeles (1929)  
Harlan Shoemaker, Los Angeles (1929)  
Morton R. Gibbons, San Francisco (1930), Chairman  
Charles L. Curtiss, Redlands (1929)

### DELEGATES AND ALTERNATES TO A. M. A.

Dudley Smith	(1928-1929)	Walter B. Coffey
Oakland		San Francisco
Albert Solland	(1928-1929)	William H. Gilbert
Los Angeles		Los Angeles
Martha Welpton	(1928-1929)	Eleanor Seymour
San Diego		Los Angeles
Victor Vecki	(1928)	William E. Stevens
San Francisco		San Francisco
Percy T. Magan	(1928)	Chas. D. Lockwood
Los Angeles		Pasadena

### COMMITTEES

#### Executive Committee

O. D. Hamlin, Chairman	Morton R. Gibbons
William H. Kiger	Percy T. Phillips
T. Henshaw Kelly	George H. Kress

Emma W. Pope

#### Committee on Scientific Program

Emma W. Pope, Chairman	
Lemuel P. Adams (1929)	Leo Eloesser (1928)
Oakland	San Francisco
Robert V. Day (1930)	J. Marion Read (1928)
Monrovia	San Francisco

#### Auditing Committee

Oliver D. Hamlin, Chairman	T. Henshaw Kelly
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#### Committee on Arrangements

Junius B. Harris, Chairman	Fred R. Fairchild
Robert A. Peers	
Finance—Frederick N. Scatena, Chairman; Hans Schluter.	
Scientific Exhibits—Robert Pearson.	
Commercial Exhibits—George A. Briggs.	
Entertainment—E. S. Babcock, Chairman; H. W. Zimmerman.	
Entertainment of Visiting Ladies—Mrs. F. F. Gundrum.	
Golf and Hotels—Gustave Wilson.	
Trap Shoot—C. E. Schoff.	
Invited Speakers—F. F. Gundrum.	

#### Publicity for 1928 Meeting

Junius B. Harris	Robert A. Peers
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## 1928 HOUSE OF DELEGATES

## Membership

## OFFICERS

Percy T. Phillips, Santa Cruz.....President  
 William H. Kiger, Los Angeles.....President-Elect  
 T. Henshaw Kelly, San Francisco.....Vice-President

## COUNCILORS

Lyell C. Kinney, San Diego (1930).....First District  
 William Duffield, Los Angeles (1928).....Second District  
 William H. Bingaman, Salinas (1929).....Third District  
 Fred R. DeLappe, Modesto (1928).....Fourth District  
 John Hunt Shephard, San Jose (1929).....Fifth District  
 Walter B. Coffey, San Francisco (1929).....Sixth District  
 Oliver D. Hamlin, Oakland (1929).....Seventh District  
 Junius B. Harris, Sacramento (1928).....Eighth District  
 Henry S. Rogers, Petaluma (1929).....Ninth District  
 Robert A. Peers, Colfax (1928).....At Large  
 Joseph Catton, San Francisco (1929).....At Large  
 George H. Kress, Los Angeles (1929).....At Large  
 Harlan Shoemaker, Los Angeles (1929).....At Large  
 Morton R. Gibbons, San Francisco (1930).....At Large  
 Charles L. Curtiss, Redlands (1929).....At Large

## DELEGATES and ALTERNATES

## Alameda County (8)

F. S. Baxter.....A. A. Alexander  
 F. H. Bowles.....W. E. Allen  
 W. L. Channell.....H. H. Hitchcock  
 C. A. De Puy.....S. A. Jelte  
 E. N. Ewer.....J. W. Sherrick  
 J. K. Hamilton.....H. J. Templeton  
 Gertrude Moore.....R. G. Van Nuys  
 D. N. Richards

## Butte County (1)

D. H. Moulton.....P. L. Hamilton

## Contra Costa County (1)

J. M. McCullough.....L. St. John Hely

## Fresno County (2)

Thomas F. Madden.....W. G. Milholland  
 C. O. Mitchell.....A. E. Anderson

## Glenn County (1)

T. H. Brown.....Etta S. Lund

## Humboldt County (1)

Orris R. Myers.....W. J. Quinn

## Imperial County (1)

E. Le Baron.....B. R. Davidson

## Kern County (1)

F. A. Hamlin.....Joseph Smith

## Lassen-Plumas County (1)

S. M. Sproat.....James P. Warren

## Los Angeles County (31)

A. B. Cooke.....J. N. Van Meter  
 Russell Sands.....William E. Bowman  
 W. H. Gilbert.....Roy E. Thomas  
 F. S. Dillingham.....Henry N. Shaw  
 Edward W. Hayes.....William Molony  
 Philip H. Stephens.....W. J. McKenna  
 Leroy B. Sherry.....Sterling Pierce  
 Fitch C. E. Mattison.....C. H. Weaver  
 W. A. Swim.....John W. Crossan  
 John H. Breyer.....Paul A. Ferrier  
 James F. Percy.....R. G. Taylor  
 Elmer E. Kelly.....Karl Dieterle  
 Foster K. Collins.....J. G. Lynch  
 Eleanor C. Seymour.....A. E. Gallant  
 Albert Soiland.....Sven Lokrantz  
 Irving R. Bancroft.....Gerald F. Smith  
 John V. Barrow.....H. B. Tebbetts  
 Fred B. Clarke.....George Thomason  
 W. W. Hutchinson.....M. H. Ross  
 George G. Hunter.....H. Wilson Levensgood  
 Joseph M. King.....Rolla G. Karshner  
 E. Earl Moody.....Carl R. Howson  
 W. S. Mortensen.....H. P. Wilson  
 Lewis D. Remington.....W. L. Huggins  
 Wilbur Parker.....Percy T. Magan  
 Lyle G. McNelle.....R. Manning Clarke  
 C. G. Toland.....R. R. Montgomery  
 C. N. Suttner.....Thomas Chalmers Myers  
 Robert V. Day.....Roy W. Hammack  
 Edward M. Pallette.....Walter P. Ellis  
 George D. Stilson.....H. A. Rosenkranz

## Marin County (1)

C. F. Larson.....R. G. Dufficy

## Mendocino County (1)

Donald R. Smith.....L. K. Van Allen

## Merced County (1)

F. O. Lden.....A. S. Parker

## Monterey County (1)

W. M. Gratlot.....H. M. Hoyt

## Napa County (1)

M. M. Booth.....W. L. Blodgett

## Orange County (2)

Harry E. Zaiser.....J. I. Clark  
 R. A. Cushman.....D. C. Cowles

## Placer County (1)

C. E. Lewis.....J. A. Russell

## Riverside County (1)

Joseph W. Cook.....T. A. Card

## Sacramento County (2)

R. N. Bramhall.....Frank B. Reardon  
 J. R. Snyder.....George Foster

## San Benito County (1)

Earl W. Hill.....Emma E. McKay

## San Bernardino County (2)

G. G. Moseley.....E. J. Eyttinge  
 S. B. Richards.....Walter Pritchard

## San Diego County (4)

Mott H. Arnold.....C. E. Howard  
 Thomas O. Burger.....F. L. Macpherson  
 Will H. Potter.....C. E. Rees  
 Martha Welpton.....Lillian B. Mahan

## San Francisco County (17)

Elbridge J. Best.....Robert R. Newell  
 Walter W. Boardman.....Guillaume D. Delprat  
 LeRoy Brooks.....William Dock  
 Harold Brunn.....Philip K. Gillman  
 Lloyd Bryan.....Henry Harris  
 Edmund Butler.....Irving S. Ingber  
 Wm. R. P. Clark.....Hans Lissner  
 Henry Walter Gibbons.....Robert C. Martin  
 John H. Graves.....Harry R. Oliver  
 Sol Hyman.....Karl L. Schaupp  
 Alexander S. Keenan.....Daniel W. Sooy  
 Eugene S. Kilgore.....Harry Spiro  
 William Palmer Lucas.....I. Walton Thorne  
 Howard C. Naffziger.....Joseph M. Toner  
 Langley Porter.....Victor G. Veckl  
 Henry A. L. Ryfkogel.....Emma K. Willits  
 Alfred J. Zobel.....J. Homer Woolsey

## San Joaquin County (2)

J. W. Barnes.....F. J. Conzelmann  
 E. J. Powell.....C. V. Thompson

## San Luis Obispo County (1)

G. David Kelker.....G. L. Sobey

## San Mateo County (1)

W. O. Calloway.....H. W. Macomber

## Santa Barbara County (1)

H. J. Ullmann.....F. R. Nuzum

## Santa Clara County (2)

L. Boonschaft.....L. M. Rose  
 N. H. Bullock.....H. E. Dahleen

## Santa Cruz County (1)

A. L. Phillips.....D. S. Woodard

## Shasta County (1)

Ferdinand Stabel.....Earnest Dozier

## Siskiyou County (1)

Cordes W. Ankele.....R. H. Heaney

## Solano County (1)

John W. Green.....E. A. Peterson

## Sonoma County (1)

Arthur G. Lumsden.....J. Walter Seawell

## Stanislaus County (1)

E. V. Falk.....R. E. Maxwell

## Tehama County (1)

Frank L. Doane.....John H. Belyea

## Tulare County (1)

E. R. Zumwalt.....W. W. Tourtellott

## Tuolumne County (1)

Homer D. Rose.....John P. Sweeney

## Ventura County (1)

J. Bianchi.....F. E. Blaisdell

## Yolo County (1)

Fred R. Fairchild.....George W. Desrosier

## Yuba-Sutter County (1)

John A. Duncan.....G. S. Delamere



## HOUSE OF DELEGATES MEETINGS

## Program

## FIRST MEETING

Memorial Hall, Auditorium, J Street, between 15th and 16th Streets, Sacramento, Monday, April 30, 8 p. m.

Open to Members of the California Medical Association

## ORDER OF BUSINESS

1. Call to order.
  2. Roll call.
  3. Report of President, Percy T. Phillips.
  4. Appointment of the Reference Committee by the President.
  5. Report of the Council, Morton R. Gibbons, Chairman (presented before the First General Meeting).
  6. Report of the Committee on Scientific Program, Emma W. Pope, Chairman.
  7. Report of the Auditing Committee, Oliver D. Hamlin, chairman.
  8. Report of Secretary, Emma W. Pope.
  9. Report of the Editors, George H. Kress, Emma W. Pope.
  10. Report of the General Counsel, Hartley F. Peart.
  11. Unfinished business.
  12. New business. (Introduction of Resolutions.)
  13. Reading and adoption of minutes.
- Adjournment.

## SECOND MEETING

Memorial Hall, Auditorium, J Street, between 15th and 16th Streets, Sacramento, Wednesday, May 2, at 8 p. m.

Open to Members of the California Medical Association

## ORDER OF BUSINESS

1. Call to order.
  2. Roll call.
  3. Announcement of the place of session, 1929.
  4. Election of:
    - (a) President-Elect
    - (b) Vice-President
    - (c) Councilors
      - Second District—Incumbent, William Duffield, Los Angeles (1928).
      - Fourth District—Incumbent, Fred R. De Lappe, Modesto (1928).
      - Eighth District—Incumbent, Junius B. Harris, Sacramento (1928).
      - Councilors at Large—Incumbent, Robert A. Peers, Colfax (1928).
    - (d) Members on Program Committee:
      - Incumbent—Leo Eloesser, San Francisco (1928).
      - Incumbent—J. Marion Read, San Francisco ('28).
    - (e) Delegates and Alternates to A. M. A.
 

Delegates	Alternates
Victor Veckl (1928)	William E. Stevens
San Francisco	San Francisco
Percy T. Magan (1928)	Charles D. Lockwood
Los Angeles	Fasadena
  5. Report of Reference Committee.
  6. Presentation of President.
  7. Presentation of President-Elect.
  8. Reading and adoption of minutes.
- Adjournment.

## GENERAL INFORMATION\*

**Registration and Information**—The registration and information desk is located in the Lobby, Auditorium. All persons attending the convention, whether members or not, are requested to register immediately on arrival. Beginning Monday, April 30, registration secretaries will be on duty daily from 9 a. m. until 5 p. m.

**Guests and Visitors**—All guests and visitors are requested to register. All General Meetings and scientific meetings are open to visitors and guests.

**Badges**—Four kinds of badges will be issued by the registration bureau:

1. **Members**—Only active, associate, affiliate or honorary members of the California Medical Association will be issued the usual membership badge. Members must show membership cards when they register.

2. **Guest**—A special badge will be issued to all fraternal delegates, visiting physicians, physiotherapists, medical social workers, nurses, and other technical specialists who are attending the 1928 Session.

3. **Delegates and Alternates**—The usual official badge is provided for this purpose, and will be issued only to persons authorized to wear it.

4. **Councilors**—An official badge is provided for all officers and members of the Council.

**Membership Cards**—Every member in good standing in the California Medical Association has been issued an official membership card for 1928. Present membership card at Registration Desk.

**Suggestions and Constructive Criticism**—The officers and committees have tried to do everything possible to make the Session a success. Suggestions and constructive criticism calculated to make future sessions more useful will be welcomed by any of the officers. Complaints of whatever character should be made to the registration desk, where they will receive attention.

**Social Program**—The social program is in the hands of the Entertainment Committee, and is published at the end of this program.

**Press Representatives**—Accredited press representatives are welcome, and they will be accorded every possible courtesy.

**Publicity**—All publicity is in the hands of the Publicity Committee. It is requested that all persons having matter of "news" value report it to this committee. It is particularly requested that all "news" about any phase of the convention be given out through the official committee, and in no other way.

**Exhibits**—Only advertisers in California and Western Medicine are permitted to exhibit at the annual meeting.

**Rules Regarding Papers and Discussions at the State Meeting**—Upon recommendation of the Executive Committee, the following rules regarding papers have been adopted by the Council:

1. The maximum time that may be consumed by any paper is fifteen minutes, provided that not to exceed ten minutes' latitude may be allowed invited guests at the discretion of the presiding chairman.

2. Motions from the floor to extend the time of an author may not be entertained by the presiding officer.

3. The maximum time permitted any individual to discuss a paper is four minutes. This also applies to the author in closing his discussion. No speaker may discuss more than once any one subject.

4. A copy of each and every paper presented at the State meeting must be in the hands of the chairman or secretary of the section or in the hands of the general secretary before the paper is presented.

5. All papers read at the Annual Meeting shall be published in full in California and Western Medicine as soon after the meeting as space will permit, or at the option of the author, an abstract of the paper of about one column in length shall be published as soon as possible after the meeting with reprints in full of the entire paper, (the cost of setting up type for the reprint to be borne by the Association, and all other costs to be borne by the author.)

6. Articles are accepted for publication on condition that they are contributed solely to California and Western Medicine. Authors desiring to publish their papers elsewhere than in the Journal may have their manuscripts returned to them upon written request to the state secretary.

7. No paper will be accepted by the General Program Committee nor by Section Program Committees unless accompanied by a synopsis of not to exceed fifty words.

8. Papers shall not be "read by title."

9. No member may present more than one paper at any State Meeting, provided that a member may be a collaborator on more than one paper, if these papers are presented by different authors.

10. Failure on the part of an author to present a paper precludes acceptance of future papers from such author for a period of two years, unless the author explains to the satisfaction of the Executive Committee his inability to fulfill his obligation.

\* See page 528 for Entertainment Program, Golf Tournament, etc.

## DIAGRAM OF MEETINGS—GENERAL AND SECTION

		Little Theater	Memorial Hall	Church	Room A	Room B	Room C	Room D
Monday April 30	10-12:30	First General Meeting—Presidential Address and Committee Reports in the Main Auditorium						
	2:30	General Medicine	General Surgery	Obstetrics	Dermatology	Industrial Medicine and Surgery	Urology	
	8-10	First House of Delegates—Memorial Hall—All C. M. A. members invited						
Tuesday May 1	10-12:30	Morning devoted to entertainment—golf tournament, trap shoot, etc.						
	2:30	General Medicine	Industrial Medicine and Surgery	Gynecology	Anesthesiology	Radiology	Pathology	Neuropsychiatry
	8:00	Dinner Dance—Main Dining Room—Hotel Senator						
Wednesday May 2	10-12:30	Second General Meeting—Invited Guests—Main Auditorium						
	2:30	*Pediatric	General Surgery	Dermatology	Neuropsychiatry	Eye, Ear, Nose, and Throat	Urology	Radiology
	8-10	Second House of Delegates—Memorial Hall—All C. M. A. members invited						
Thursday May 3	10-12:30	Third General Meeting—Invited Guests—Main Auditorium						
	2:30	General Medicine	General Surgery	Neuropsychiatry	Anesthesiology	Eye, Ear, Nose, and Throat	Pathology	
	8-10	Fourth General Meeting—Public Health Meeting—Main Auditorium						

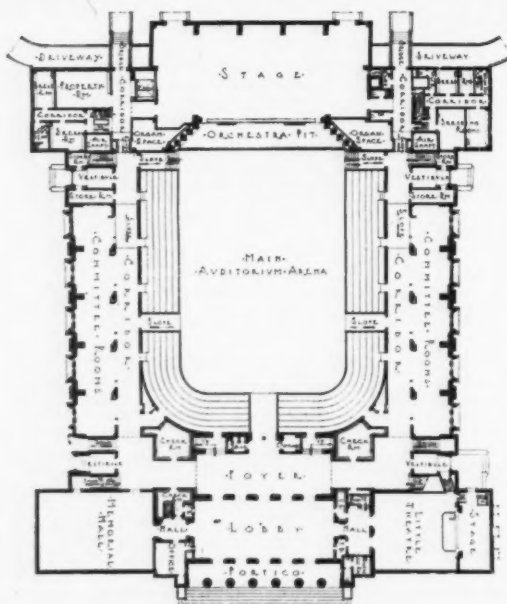
## SCIENTIFIC EXHIBITS

### Room E:

Motion pictures of living animals' hearts—Harry Spiro, M. D.; William W. Newman, M. D.

### Memorial Hall:

1. Drawings—Ralph R. Sweet.
2. Exhibit by Charles E. von Geldern, M. D.
3. Demonstration of gall-bladder disease with one hundred mounted specimens—Stanley H. Mentzer, M. D.
4. Exhibit by the Cardiac Committee of the California Tuberculosis Association—Specimens and drawings; electrocardiograms and electrical stethoscope; moving-picture films in Room E—William Kerr, M. D.



FIRST FLOOR PLAN

Auditorium, J Street, between 15th and 16th

## MEETINGS, DINNERS AND LUNCHEONS

Meetings of the House of Delegates—Monday and Wednesday evenings, April 30 and May 2, at 8 p. m. in Memorial Hall, Auditorium.

### Council Meetings, Suite 221, Hotel Senator:

- First Meeting—Sunday, April 29, at 8 p. m.
- Second Meeting—Monday, April 30, at 2:30 p. m.
- Third Meeting—Tuesday, May 1, at 2:30 p. m.
- Fourth Meeting—Wednesday, May 2, at 2:30 p. m.
- Fifth Meeting—Thursday, May 3, at 2:30 p. m.

General Meetings—The public is invited to attend all General Meetings:

- Monday, 10 a. m. to 12:30 p. m.—Presidential Addresses, main Auditorium.
- Wednesday, 10 a. m. to 12:30 p. m.—Addresses, invited guests, main Auditorium.
- Thursday, 10 a. m. to 12:30 p. m.—Addresses, invited guests, main Auditorium.
- Thursday, 8 p. m.—Public Health Meeting, main Auditorium.

President's Dinner and Dance—Tuesday evening, ballroom, Hotel Senator.

Secretaries' Luncheon—Thursday, 12:30 to 2 p. m., Hotel Senator, Room 225.

Presidents and secretaries of constituent societies are requested to be present at a luncheon to be held at Hotel Senator on Thursday at 12:30. Please make your reservations for this luncheon at the registration desk as early as possible.

Program Committee and Section Officers' Luncheon—Wednesday, 12:30 to 2:30 p. m., Hotel Senator, Room 225.

The Program Committee and all incoming and outgoing section secretaries and chairmen are invited to attend this luncheon. Please make reservations at the registration desk.

\* Clinic on Pediatrics: Thursday morning, May 3, Sutter Hospital, Twenty-Elghth and L Streets.

## GENERAL MEETINGS

Main Auditorium—J Street, between 15th and 16th Streets

### FIRST GENERAL MEETING

Monday, April 30, 10 a. m.

1. *Invocation*—Rev. William H. Hermitage, St. Paul Episcopal Church.
2. *Address of Welcome*—His Excellency Clement C. Young, Governor of the State of California.
3. *President's Annual Address—Narcotics*—Percy T. Phillips, M. D.
4. *Address of President-Elect*—William H. Kiger, M. D.
5. *Annual Report of Council*—Morton R. Gibbons, M. D.
6. *Report of Arrangements Committee*—Junius B. Harris, M. D.

### SECOND GENERAL MEETING

Wednesday, May 2, 10 a. m.

1. *Sudden Cerebral Lesions*—S. A. K. Wilson, M. D., University of London, England.
2. *The Cost of a Medical Education*—Ray Lyman Wilbur, Stanford University, Palo Alto.
3. *Address*—R. H. Creel, M. D., Marine Hospital, San Francisco.

### THIRD GENERAL MEETING

Thursday, May 3, 10 a. m.

1. *Adipose Tissue*—H. Gideon Wells, M. D., University of Chicago, Chicago, Illinois.
2. *Acute Duodenal Fistula*—Waltman Walters, M. D., Mayo Clinic, Rochester, Minnesota.

### FOURTH GENERAL MEETING

Thursday, May 3, 8 p. m.

1. *What the Layman Wants to Know About Cancer*—H. Gideon Wells, M. D., Chicago.

## SECTION MEETINGS

### ANESTHESIOLOGY SECTION



MARY F. KAVANAGH, M. D.  
Chairman  
1020 Union Street  
San Francisco

R. G. HENDERSON, M. D.  
Secretary  
Bank of Italy Building  
Broadway and Pine  
Streets  
Long Beach

#### FIRST MEETING

Room A, Auditorium  
Tuesday, May 1  
2:30 p. m.

1. *Chairman's Address—The Origin of the Word "Anesthesia"*—Mary F. Kavanagh, M. D.
2. *Anesthesia in Obstetrics*—Frank W. Lynch, M. D., University of California Hospital, San Francisco.  
Discussion by Caroline B. Palmer, M. D., and R. T. Hastreiter, M. D.

The paper considers the merits and demerits of the anesthetics now usually given by inhalation to produce analgesia, such as ethylene, nitrous oxid, and oxygen, and also reviews the results that have been obtained with the Gwathmey method and modifications in the University of California obstetrical clinic.

3. *Ethylene Anesthesia*—W. W. Hutchinson, M. D., 914 Detwiler Building, 412 West Sixth Street, Los Angeles.

Discussion by Mary E. Botsford, M. D., and Edgar I. Leavitt, M. D.

Ethylene: its advantages and disadvantages; observations from use in over two hundred patients where ethylene has been personally used in the Hollywood Hospital in the last six months of 1927. Precautions and lack of precautions in hospitals. Results: good and bad; postoperative

complications in any way attributable to ethylene. Summary and conclusions.

4. *Nitrous Oxid in Oral Surgery*—Mary E. Botsford, M. D., 807 Francisco Street, San Francisco.

Discussion by Neil C. Trew, M. D.

Growing recognition of importance of focal infections in production of general pathological conditions, causing increased number of tonsillectomies and dental extractions. Frequent necessity of these operations being done in presence of pulmonary and renal conditions contraindicating ether. Résumé of two hundred cases of nitrous oxid-oxygen anesthetics for oral surgical procedures.

5. *Training of Anesthetists in Great Britain*—Clare Malone, M. D., St. Luke's Hospital, San Francisco.

In Great Britain the specialty of anesthesia solely in the hands of physicians. Legal side of the question. Women in the specialty. Methods of training in medical schools. Hospitals in Great Britain and arrangement of the anesthetic staffs therein.

#### SECOND MEETING

Room A, Auditorium

Thursday, May 3, 2:30 p. m.

1. *Transsacral Anesthesia and Its Relation to General Surgery*—E. J. Kilfoy, M. D., 709 Medical Office Building, 1136 West Sixth Street, Los Angeles.

Transsacral anesthesia is not a difficult procedure, and it does away with many postoperative complications, such as pleurisy, pneumonia, and pulmonary emboli, and it is in this way a material aid in lowering the surgical mortality. Failure to produce anesthesia lies in the hands of the anesthetist. If used and used successfully the patient is a "booster"; if unsuccessful the patient is a "knocker," so the operator must make sure in his own mind that the area is completely anesthetized.

2. *Spinal Anesthesia with Special Reference to the Use of Ephedrin*—Hall G. Holder, M. D., 1301 Medico-Dental Building, 233 A Street, San Diego.

One hundred fifty-one cases of spinal anesthesia are reported with no morbidity or mortality and only one failure. Subjective and objec-



tive symptoms and sensations during the anesthetic occurred in about 3 per cent of cases. There was no postanesthetic sequelae other than headache, which occurred in only one, lasting more than twenty-four hours. Approximately one-half of the series received ephedrin. In those cases given 100 mg. or over of novocain without ephedrin, there was an average blood pressure drop of 37.5 mm., while those receiving it had an average drop of 12.8 mm. The sustained epinephrin-like action of ephedrin is definitely shown and its value in stabilizing blood pressure in spinal anesthesia clearly indicated.

3. *The Heart in Reference to Anesthesia*—R. W. Langley, M. D., 312 Professional Building, 1052 West Sixth Street, Los Angeles.

Discussion by Robert Burrows, M. D., and Neil C. Trew, M. D.

Proper evaluation of the risk to be taken is the most important factor in the management of cardiac cases in anesthesia. The type of anesthesia to be chosen will depend upon a thorough study of the cardiovascular condition. The skill of the anesthetist and his management is more important than the type of anesthesia.

4. *Anesthesia for Head Operations*—L. A. Rethwilm, M. D., 2217 Webster Street, San Francisco.

Discussion by Dorothy Wood, M. D., and Harry T. Cook, M. D.

1. Eye, nose, and throat operations: (a) usual procedure; (b) special cases under N<sub>2</sub>O-O. 2. Eye operations: (a) under ether anesthesia; (b) under N<sub>2</sub>O-O anesthesia—reasons for using and method of administering. 3. Other surgical head cases: particular technique during cautery excision of carcinoma of tongue, palate, etc.

5. *Anesthesia at the San Francisco Unit Shriners' Hospital for Crippled Children*—Emma Buckley, M. D., 2111 Hyde Street, San Francisco.

Nitrous oxid-oxygen throughout for delicate or weakened children or short operation. Ether or ether-oxygen the usual anesthetic. Preoperative preparation by isolation, external locals and atropin by mouth under 5 years; morphin and atropin hypodermically for older children. In closed cases where manipulation and change of position frequent, ether most efficient. Measures during operation and postoperative care taken to prevent postoperative complications.

## DERMATOLOGY AND SYPHILOLOGY



KENDAL P. FROST, M. D.

KENDAL P. FROST, M. D.  
Chairman

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Street  
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\*IRWIN C. SUTTON, M. D.  
Secretary

FIRST MEETING

Room A  
Auditorium

Monday, April 30  
2:30 p. m.

1. *Skin Diseases and Their Importance to the General Practitioner—Considered from the Viewpoint of the Dermatologist*—C. Ray Lounsberry, M. D., 1111

\* Deceased.

Medico-Dental Building, 233 A Street, San Diego.

Discussion opened by Charles E. Schoff, M. D., Sacramento.

A consideration of diseases of the skin. Their relation to general pathological condition. Anaphylaxis. Importance of painstaking diagnosis. Treatment considered from internal as well as external points of view. Illustrated by case report.

2. *Erosio Interdigitalis Blastomycetica*—G. F. Koetter, M. D., 812 Medical Office Building, 1136 West Sixth Street, Los Angeles.

Discussion opened by Norman Epstein, M. D., San Francisco.

Erosio interdigitalis blastomycetica is of saccharomycetic origin. Commonly seen in women who wash clothing. Soap suds an important factor in the continuance of the infection. Absence of vesication, chronicity, fixed location, and the occurrence of the disorder on the hands of washerwomen, make the dermatosis worthy of consideration as an entity.

3. *Gold and Sodium Thiosulphate in the Treatment of Lupus Erythematosus*—Hiram E. Miller, M. D., 803 Fitzhugh Building, 384 Post Street, San Francisco.

Discussion opened by Samuel Ayres, M. D., Los Angeles.

A brief review of the use of gold compounds in the treatment of tuberculosis and other allied conditions. Personal experience in the treatment of fifty or more patients with lupus erythematosus, erythema induratum, and a few with diseases of obscure etiology such as lichen planus, urticaria, pigmentosa, psoriasis, etc. Contraindications to the use of the drug, reactions, recurrences, etc., will be discussed.

4. *The Radio Knife in Dermatologic Surgery*—H. J. Templeton, M. D., 3115 Webster Street, Oakland.

Discussion opened by Harry Alderson, M. D., San Francisco.

Review of the literature. Consideration of the physics of the current used. Experiments. Method of using knife. Practical points. Advantages and disadvantages. Review of cases treated by this method, including epitheliomas of the skin, lip and tongue, extra mammary, Paget's disease, melanomas, Naevi, carbuncles, fibromyxoma, and removing tissue for biopsies.

5. *Observations on the Value of X-Ray Therapy in Dermatology*—L. F. X. Wilhelm, M. D., 410 California Medical Building, 1401 South Hope Street, Los Angeles.

Discussion opened by H. J. Templeton, M. D., Oakland.

A brief sketch of the evolution of modern x-ray therapy in dermatology; pathologic changes produced in the skin; factors and tests determining skin tolerance; necessity of keeping well within the limits of skin tolerance. Cases showing evils of exceeding limits of skin tolerance. Limitations of and contraindications to its use.

6. *Improvement in Appearance of Scars, Hypertrophied Scars, and Keloids by Physiotherapy, X-Rays, Ultra-Violet Rays from Quartz Lamp, Radium Emanations, Applications of Carbon Dioxid Snow, and Acids*—H. C. L. Lindsey, M. D., Pasadena.

Discussion opened by George Koetter, M. D., Los Angeles.

Acne of various types, lupus vulgaris, lupus erythematosus, healed surgical wounds, x-ray burns, thermal burns, tuberculous involuted ulcers and repaired syphilitic lesions, sometimes render people less efficient and less beautiful in personal appearance by unsightly cicatrices, and much can be corrected and rendered less

conspicuous by artistic use of armamentaria mentioned.

#### SECOND MEETING

Church, Fifteenth and J Streets  
Wednesday, May 2, 2:30 p. m.

1. *Early Writings on Syphilis*—Merrill W. Hollingsworth, M. D., 409 First National Bank Building, Santa Ana.  
Discussion opened by George Dock, M. D., Pasadena.

From original Latin volumes in the University of Vienna. Was "lepra" of the Middle Ages leprosy or syphilis? Correlation of the varied picture during the 1494-96 epidemic of syphilis, with observations in Soviet Russia. Jean Astruc's reasons for denying the possibility of syphilis being caused by a micro-organism.

2. *Four Years' Observation with Malaria Therapy in Patients with Neurosyphilis*—Paul A. O'Leary, M. D., Mayo Clinic, Rochester, Minnesota.

The results in the first one hundred patients with neurosyphilis treated by malaria therapy and observed for four years; the type and degree of clinical and serological improvement; types of neurosyphilis best suited for the method; analyses of the failures including the deaths; a comparative evaluation of the various methods of treating neurosyphilis; illustrative case reports.

3. *The Non-Specific Diagnosis of Congenital Lues*—Stuart C. Way, M. D., 320 Medico-Dental Building, 490 Post Street, San Francisco.

Discussion opened by Harry Coe, M. D., Oakland.

The minor diagnostic signs in congenital syphilis, with special reference to anatomical dysmorphies and other pathological abnormalities, the importance of which is frequently confirmed by the Wassermann or other serological tests.

4. *A Syphilologist's Ideal Clinic*—Ernest K. Stratton, M. D., 414 Medico-Dental Building, 490 Post Street, San Francisco.

Discussion opened by H. J. Templeton, M. D., Oakland.

Social service activities. History and treatment charts. Arrangement of the examination and treatment rooms. A properly equipped laboratory adjoining. Cooperation to and from other departments.

5. *Actinomycosis*—Norman N. Epstein, M. D., 803 Fitch Building, 384 Post Street, San Francisco.

Discussion opened by George Culver, M. D., San Francisco.

Example of actinomycosis in a young male adult. On incision pus containing "sulphur granules" exuded from the abscesses. Organisms identified microscopically. Were cultured. Condition has apparently been cured by use of sodium iodid intravenously, and by non-specific protein therapy.

6. *Further Observation on the Treatment of Coccidioides*—H. P. Jacobsen, 1016 South Alvarado Street, Los Angeles.

Discussion opened by Hiram E. Miller, M. D., San Francisco.

Two additional cases of coccidioides treated with colloidal copper apparently successfully. The elapse of one year since the report of the first two cases of the disease treated with colloidal copper successfully has produced sufficiently encouraging results to justify its further employment.

#### EYE, EAR, NOSE, AND THROAT SECTION



SIMON JESBERG, M. D.

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#### FIRST MEETING

Room B, Auditorium

Wednesday, May 2

2:30 p. m.

1. Chairman's Address—Simon Jesberg, M. D.

2. *Prolonged Monocular Occlusion in Diagnosis of Heterophoria*—Edward M. Talbott, M. D., Oakland Bank Building, Oakland.

Discussion opened by R. J. Nutting, M. D.

As a cycloplegic is used in diagnosing a metropia; so prolonged monocular occlusion should be used in selected cases to determine the existence of muscle imbalance. It should be continuously maintained until two successive tests give similar results; usually a week. Treatment: based upon this test often relieves persistent asthenopia.

3. *Sight-Saving Classes in California*—Frank H. Rodin, M. D., 505 Medico-Dental Building, 490 Post Street, San Francisco.

Discussion opened by Anita M. Muhl, M. D.

The paper deals with the conservation of vision of myopic children and the education of those children whose sight does not permit them to study in the regular grades. It also covers a survey of what is being done by the various Boards of Education in the cities and counties of California, where sight-saving classes have been established and the type of children educated there.

4. *A Typical Lateral Sinus Disease*—A. S. J. Smith, M. D., 410 Twoby Building, San Jose.

Discussion opened by Dorothea Lee, M. D.

Case No. 1, septic clot extending from torcular herophili to bulb of jugular without mastoid sepsis following extensive hemorrhage from ear. Case No. 2, wherein symptoms simulated lateral sinus thrombosis, sinus exposed and found healthy. Recovery without operation. Case No. 3, venous hemorrhage from mastoid cells, small opening in sinus wall without apparent perisinus abscess.

5. *Reconstruction of the Auricle*—George W. Pierce, M. D., 720 Medico-Dental Building, 490 Post Street, San Francisco.

Discussion opened by H. B. Graham, M. D.

Most reconstructed ears have a marked tendency to contract. The new operation demonstrated in this paper provides an auricle which does not shrink. The paper is illustrated with moving pictures, and shows three examples of reconstruction. 1. Complete loss of ear from

- trauma. 2. Loss of half the auricle from trauma.  
3. Congenital absence of the auricle.

6. *Unilateral Exophthalmos in Toxic Goiter*—Samuel A. Durr, M. D., 1304 Medico-Dental Building, 233 A Street, San Diego.

Discussion opened by Frank W. Miller, M. D.

Standard textbooks of ophthalmology do not mention Graves' disease as an etiological agent in unilateral exophthalmos. A short discussion of the causes of exophthalmos is given. Two case histories are detailed of patients showing unilateral exophthalmos, with a co-existing Graves' disease. In neither of these did there seem to be any other causative factor, and both improved very rapidly under iodids and bed rest.

#### SECOND MEETING

Room B, Auditorium

Thursday, May 3, 2:30 p. m.

1. *The Untoward Effects of Protein Therapy in Ophthalmic Practice*—M. N. Beigelman, M. D., 1244 Roosevelt Building, 727 West Seventh Street, Los Angeles.

Discussion opened by Otto Barkan, M. D.

Various forms of anaphylaxis in protein therapy—from slight vascular disturbances to death. Frequency and preventive methods; focal reactions in the treatment of corneal and uveal lesions; untoward effects in keratomalacia and corneal herpes; possibility of an increase in tension in secondary glaucoma, illustrated by case histories.

2. *Allergic Rhinitis*—H. P. Merrill, M. D., 702 Title Insurance Building, Los Angeles.

Discussion opened by George Piness, M. D.

Allergic rhinitis not a disease entity, but a local manifestation of general hypersensitivity. The local signs, gross and microscopic pathology have been known for years. Failure to recognize their allergic origin still leads to treatment of these cases as infections, neuroses and nasal reflexes. Rhinologists must become familiar with the methods of diagnosis and treatment of allergic conditions if these cases are to be handled properly.

3. *Chronic Purulent Otitis Media*—Frank E. Detling, M. D., 907 Chapman Building, Los Angeles.

Discussion opened by F. M. Shook, M. D.

Neglected subject, not having been presented on annual program since 1909. Most vital to patient; frequent complications and grave possibilities make it the largest and most important chapter in otology. Prophylaxis—full economic and medical problem of condition not fully appreciated. Frequency at Los Angeles General Hospital in contagious department. Diagnosis. Treatment. (a) Medical (50 to 75 per cent curable). (b) Surgical: indications and contra-indications.

4. *The X-Ray as an Aid in the Injection of the Sphenopalatine Ganglion*—O. H. Homme, M. D., 918 Pacific Mutual Building, 523 West Sixth Street, Los Angeles.

Discussion opened by Isaac H. Jones, M. D.

The sphenopalatine foramen and the pterygo-palatine canal can be seen by x-ray. When needles are inserted their relation to the ganglion region and surrounding structures can be determined. Thus dangers of the injection are lessened, and more successful results can be expected.

#### GENERAL SURGERY SECTION



CHARLES E. PHILLIPS, M. D.

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BURNS S. CHAFFEE, M. D.  
Secretary Southern  
Section

917 Security Building  
Long Beach

#### FIRST MEETING

Memorial Hall, Auditorium  
Monday, April 30, 2:30 p. m.

1. Chairman's Address—*Statistical Studies and Medical Efficiency.*

2. *The Commoner Surgical Lesions of the Rectum and Anus—Treatment*—M. S. Woolf, M. D., Fitzhugh Building, 384 Post Street, San Francisco.

Discussion opened by Dudley Smith, M. D., and William H. Kiger, M. D.

Anatomy of the anal canal with especial reference to the sphincter and levator ani muscles. Hemorrhoids. The value and method of treatment by injections. Results. Fissure in ano. Why treatment may fail. Fistula and abscess. External opening not always necessary for treatment of the latter. Treatment depends on anatomy. Multiple fistulae.

3. *Acute Pancreatitis*—W. H. Olds, M. D., Consolidated Building, 607 South Hill Street, Los Angeles.

Discussion opened by Frederick Leet Reichert, M. D., and Frank B. Reardon, M. D.

A report of seven cases of acute pancreatitis. Essential operative findings and postoperative complications brought out. Especial emphasis on proper drainage and postoperative care. Some conclusions reached after reviewing these cases.

4. *Reconstruction of Long Bones*—Harlan Shoemaker, M. D., Bank of Italy Building, 649 South Olive Street, Los Angeles.

Discussion opened by Thomas J. Nolan, M. D., and Donald Cass, M. D.

Immediate reconstruction following fracture. Reconstruction of old fractures: (a) Overcoming shortening. (b) Overcoming angulation. (c) Overcoming muscle and tendon contractures. (d) Avoidance of shock.

Methods. Internal fixation: (a) Foreign bodies. (b) Grafts. (c) Plastic work. External fixation: (a) Casts. (b) Braces. (c) Combination of braces and casts and traction.

5. *Fractures of the Elbow Region, Prognosis and Treatment*—H. D. Barnard, M. D., 2417 South Hope Street, Los Angeles.

Discussion opened by Thomas R. Haig, M. D., and J. Judson Sale, M. D.

First section takes up the epiphyseal development of elbow from a diagnostic and surgical standpoint. The more common types of fracture are exhibited showing the approximate functional end-result to be expected in each type. X-rays and function demonstrated in each case. Last section shows author's method of treatment. (Moving-picture film.)



6. *The Control of Intractable Pain*—E. B. Towne, M. D., 612 Union Square Building, 350 Post Street, San Francisco.

Discussion opened by Walter Coffey, M. D., and Howard Fleming, M. D.

The pain of inoperable malignant disease may be abolished by certain neurosurgical procedures: (1) alcohol injection or division of the sensory root of the trigeminal nerve, (2) division of the glossopharyngeal nerve in the posterior fossa of the skull, and (3) division of the anterolateral columns of the spinal cord in the upper dorsal region. (Lantern slides.)

#### SECOND MEETING

Memorial Hall, Auditorium

Wednesday, May 2, 2:30 p. m.

1. *"By Their Fruits Ye Shall Know Them"*—T. W. Huntington, M. D., 220 Montgomery Street, San Francisco.

No discussion.

2. *Inguinal Hernia Containing Fallopian Tube*—Alanson Weeks, M. D., and G. D. Delprat, M. D., Fitzhugh Building, 384 Post Street, San Francisco.

Discussion opened by Clinton Collins, M. D., and Eugene Falk, M. D.

Case of pelvic inflammatory disease in which there was a swelling below Poupart's ligament. This was thought first to be either a bubo or extension of the inflammation along the broad ligament and out through the inguinal opening; it was found to be a right tube which was contained in the inguinal canal.

3. *Duodenitis*—Günther W. Nagel, M. D., Rochester, Minnesota. (By invitation.)

Discussion opened by John Homer Woolsey, M. D., and Charles T. Sturgeon, M. D.

Duodenitis is a surgical and oathological entity characterized by circumscribed or diffuse inflammation of the first portion of the duodenum. Secondary inflammatory changes in the tissues surrounding duodenal ulcer are well known. Inflammation as a primary lesion and its place in the ulcer problem are discussed.

4. *Bronchiectasis*—Harold Brunn, M. D., and William B. Faulkner, M. D., Fitzhugh Building, 384 Post Street, San Francisco.

Discussion opened by Loren Roscoe Chandler, M. D., and Hans Schiffbauer, M. D.

The mechanical principles involved in the production of the bronchiectasis. The etiological factors including influenza and war gases. The insidious onset and the difficulty of diagnosis of early cases by physical signs alone. Lipiodol, bronchoscopy, and pneumothorax are very useful in the diagnosis of cases while still amenable to treatment.

5. *The Importance of Alkalosis in Certain Preoperative Lesions and Postoperative Lesions of the Upper Gastro-Intestinal Tract*—E. Eric Larson, M. D., Woodland Clinic, Woodland; and D. Schuyler Pulford, M. D., Woodland Clinic, Woodland.

Discussion opened by H. G. Wells, M. D., and Leo Pecci Bell, M. D.

It is necessary to recognize the presence of alkalosis, the opposite of acidosis, in lesions of the upper gastro-intestinal tract. Attention is called to three different types of conditions with the clinical and blood chemical findings. The manner of treatment, preoperatively and post-operatively, as well as the results obtained, is shown.

6. *The Circulatory Phenomena Attending an Arteriovenous Aneurysm and Their Importance in Relation to Surgical Therapy*—Emile Holman, M. D., Stan-

ford Hospital, 2398 Sacramento Street, San Francisco.

Discussion opened by William Dock, M. D., and C. D. Lockwood, M. D.

Cardiac decompensation is the inevitable result of any large arteriovenous communication if allowed to remain for sufficient length of time. Hence, it is important to treat the lesion by surgical methods, preferably by excision and quadruple ligation. Ligation of the artery proximal to a fistula in an extremity is contraindicated because of danger of gangrene beyond the fistula.

#### THIRD MEETING

Memorial Hall, Auditorium

Thursday, May 3, 2:30 p. m.

1. *Adenomatous Goiter*—F. B. Settle, M. D., 610 Security Building, First and Pine Avenue, Long Beach.

Discussion opened by J. L. Maupin, M. D., and Joseph F. Walsh, M. D.

1. The first anomaly of the thyroid gland to be treated surgically. 2. The relative incidence as compared to other surgical lesions—age, sex. 3. The prolonged pretoxic and other preclinical periods—Tendency to regard so-called "innocent goiter" lightly—Its relation to sexual phenomena in women—puberty—childbearing—menopause.

2. *The Distribution of Endemic Goiter in California*—Henry Hunt Searls, M. D., University of California Hospital, Fourth and Parnassus Avenues, San Francisco.

Discussion opened by Wallace I. Terry, M. D., and Clarence Toland, M. D.

From the residence history in case records of the endemic types of goiter, the locality in which the goiter developed was definitely established in 450 cases. A map of California on which these localities are plotted shows certain regions where the incidence of endemic goiter is quite high.

3. *The Importance of Differential Diagnosis in Toxic Goiter*—A. B. Cooke, M. D., Roosevelt Building, 727 West Seventh Street, Los Angeles.

Discussion opened by Philip Gilman, M. D., and J. H. Shephard, M. D.

Is there essential difference between the hyperthyroidism of exophthalmic goiter and that of toxic adenoma? Is iodine (Lugol's solution) beneficial in one type and harmful in the other? Affirmative answer to these two questions establishes the importance of differential diagnosis. Discussion of the means available for reaching correct conclusions in diagnosis.

4. *Graft of Human Fetal Pancreas in Diabetes*—Leo Eloesser, M. D., Medico-Dental Building, 490 Post Street, San Francisco.

Discussion opened by Eugene Kilgore, M. D., and Howard West, M. D.

A graft of fetal pancreas tissue was successful in reducing the amount of fetal insulin in a young diabetic by 50 per cent.

5. *Traumatic Shock—Its Newer Aspects and Treatment*—George K. Rhodes, M. D., 315 Fitzhugh Building, 384 Post Street, and Carol McKenney, M. D., 1243 Flood Building, 870 Market Street, San Francisco.

Discussion opened by Ernest Falconer, M. D., and James O'Connor, M. D.

This paper will endeavor to review the clinical aspects of traumatic shock and discuss the modern conception of the problems involved. The more generally accepted theories will be reviewed and a rational treatment outlined which will be submitted as based on acceptable experimental data.

## GENERAL MEDICINE SECTION



JAMES F. CHURCHILL, M. D.

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## FIRST MEETING

Little Theater  
Auditorium  
Monday, April 30  
2:30 p. m.

1. *A Special Autogenous Vaccine*—Oscar F. Johnson, M. D., 510 Physicians Building, 1027 Tenth Street, Sacramento.

Autogenous vaccine prepared by method of Solis-Cohen. Used in chronic cases seen in general practice. Patient's bacteria cultured in about 6 cc. of his own blood. Natural antiseptic properties of blood destroy organisms to which he has an immunity. Vaccine made from surviving organisms; method of distinct value.

2. *The Treatment of Polycythemia Vera with Phenylhydrazine*—Samuel H. Hurwitz, M. D., 1214 Medico-Dental Building, 490 Post Street, San Francisco, and Joseph Levitin, M. D., 3856 California Street, San Francisco.

Clinical symptoms of polycythemia vera (Osler's disease; Vaquez's disease) mainly due to increased bulk of red cells resulting from excessive erythroblastic activity of the bone marrow. Treatment therefore concerned with relief of symptoms by reducing total blood mass: venesection, roentgen rays, radium, and benzol, all employed with some modicum of success. Case reported.

3. *A Fatal Case of Rattlesnake Bite, with a Review of Nineteen Similar Cases and Remarks on Specific Therapy*—J. F. Doughty, M. D., 231 West Eleventh Street, Tracy.

Only nineteen fatal cases of rattlesnake bite recorded. The case presented is of three-year-old boy, bitten three times. Tabulation of all reported fatal cases given with discussion of the mechanism of the bite, physiological action of the venom, and non-specific and specific treatment. Illustrated with six lantern slides, from pictures by Ralph Sweet.

4. *The Radicular Syndrome—Its Relation to Arthritis of the Spine*—Lewis Gunther, M. D., University of California Hospital, Fourth and Parnassus Avenues, San Francisco.

Work done by the French school; literature briefly considered. Short discussion of lack of accurate objective observations in so-called neuralgias associated with arthritic changes in the spine. Results of studies of series of case observations made on Medical Service, University of California Hospital, and dispensary on patients whose complaints were of root nature. Relationship of such complaints with their concomitant sensory changes to osteoarthritis of the spine. Application of observations to so-called neuritic states and importance of this syndrome,

which simulates closely a multitude of visceral diseases, considered in differential diagnosis.

5. *Critical Diagnosis and Treatment of Diseases in Which Human Intestinal Protozoa are a Factor*—John V. Barrow, M. D., 701 Westlake Professional Building, Los Angeles.

1. Essentials in laboratory diagnosis giving both quantitative and qualitative knowledge of the organisms. 2. Estimating the virulence, protein load, eliminative possibilities, and host resistance. 3. Chronic diseases from general causes in which protozoa are undoubtedly a factor. 4. So-called carrier cases in which treatment may be questionable. 5. Heavily infested cases fulfilling all typical requirements specifically outlined. 6. Drugs, methods and manner of treatment specifically outlined.

## SECOND MEETING

Little Theater, Auditorium  
Tuesday, May 1, 2:30 p. m.

1. *A Simple Management of Achlorhydria Gastrica*—W. D. Sansum, M. D., and P. A. Gray, M. D., Santa Barbara Cottage Hospital, Santa Barbara.

Subnormal amount of hydrochloric acid in the stomach a common cause of abdominal distress, sometimes associated with alternating attacks of constipation and diarrhea. Condition usually inadequately treated by use of dilute hydrochloric acid, because only limited amounts of mineral acid can be given. During the past three years grapefruit, grapefruit juice, and lemonade have been used with excellent results.

2. *Use of Liver Extract in Pernicious Anemia*—H. A. Wyckoff, M. D., Stanford University Hospital, Clay and Webster Streets, San Francisco.

A fraction of liver, prepared by the method of Cohn and Minot, has been available through the courtesy of the Harvard Pernicious Anemia Committee. Report of four undoubted cases of pernicious anemia treated with this substance. Typical response obtained in all cases including rise in reticulocytes and prompt rise in blood count and hemoglobin to approximately normal levels. Discussion of the dosage, indications and character of blood change produced by this treatment.

3. *Abdominal Food Allergy*—Albert H. Rowe, M. D., 242 Moss Avenue, Oakland.

Food allergy is frequent cause of abdominal pain and indigestion and has not received sufficient recognition. Patients presenting these symptoms who give positive family or personal history of allergy or who have obvious disagreements or distastes for certain foods should be investigated from point of view of food sensitization. A plan for diagnosis by history, skin tests, and by the use of "elimination diets" will be outlined and the best methods of therapy and control in the writer's experience will be discussed.

4. *The Relation of Inorganic Salts to Life Processes*—Professor Carl L. A. Schmidt, Division of Biochemistry and Pharmacology, University of California, Berkeley.

Paper will concern itself with need of animal organism for various inorganic elements which are present in most mixed diets. How the body exhibits its need for these various elements when they are withheld. Relation of such elements as calcium, phosphorus, iodine and iron to pathological conditions. How the inorganic elements are related to the acid-base balance. Brief résumé of experiments which were carried out on

an experimental squad. Summary of certain newer developments in this field of research.

5. *Pellagra*—Gordon E. Hein, M. D., University of California Hospital, Fourth and Parnassus Avenues, San Francisco.

Discussion opened by R. L. Bramhall, M. D.

Clinical picture of symmetrical dermatitis, sore mouth and diarrhea, with changes in central nervous system known as pellagra. Not uncommon in San Francisco; and recent increase in cases observed. Deficient diet a common finding. Excessive alcohol apparently a predisposing factor in large per cent. No difference clinically between syndrome in patients with history of excessive alcohol and those without. Operations on gastro-intestinal tract (gastroenterostomy) seemed to bear occasionally some relation to disease in a few. Some patients with complete recovery; others with recurrences. Mortality in well-advanced cases high.

### THIRD MEETING

Little Theater, Auditorium  
Thursday, May 3, 2:30 p. m.

- Chairman's Address.
- Social and Economic Aspect of Heart Disease*—George E. Ebricht, M. D., 719 Fitzhugh Building, 384 Post Street, San Francisco.  
Recognition of heart disease as social problem; segregation of preventable and unavoidable types; knowledge increasing regarding cause of former; rheumatism; syphilis; occupational activities. Economic loss—comparison with tuberculosis; with typhoid; cost of hospitalization. Cardiac cripples—classification; education; vocational training. Cooperation of social and governmental agencies and professions; functions of each. Conclusions.
- The Pathogenesis of Rheumatic Heart Disease*—Walter P. Bliss, M. D., 407 Professional Building, 65 North Madison Avenue, Pasadena.  
Consideration of incidence and lesions produced by rheumatic fever with especial reference to myocarditis and endocarditis; early and remote effects of disease; association of tonsillar and other foci of infection; relationship of chorea to rheumatic fever; complications with especial reference to pericarditis.
- The Treatment of Rheumatic Heart Disease in Children*—William W. Belford, M. D., 3235 Fourth Street, San Diego.  
Need of complete and prolonged rest in bed most imperative and to be begun as quickly as possible. Foci of infection should be removed, but with care and after careful observation. Importance of nutrition of such children must not be forgotten.
- Adhesive Pericarditis*—John J. Sampson, M. D., University of California Hospital, Fourth and Parnassus Avenues, San Francisco.  
Adhesive pericarditis clinical entity; unusual load of work put on heart. Diagnosis dependent on suggestive history of severe cardiac infection with or without pericardial pain; cardiac hypertrophy disproportionate to mechanical defect of damaged valves; practical physical signs; fixation of the mediastinal contents in shifting posture, demonstrated strikingly by x-ray and electrocardiogram. Technique of electrocardiogram briefly given. Sharp delineation of otherwise doubtful cases: case histories. Infection to pericardium from pulmonary and pleural lesions such as bronchiectasis, lung abscess, and empyema. Possible relief of condition by surgical plastic procedures.

## INDUSTRIAL MEDICINE AND SURGERY SECTION



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FIRST MEETING  
Room B  
Auditorium

Monday, April 30  
2:30 p. m.

- Carbon Monoxid Poisoning*—Robert T. Legge, M. D., 6 Roble Road, Berkeley.

Discussion opened by M. R. Gibbons, M. D.

An industrial and domestic invisible hazard. The significance of small amounts inhaled by artificers. Toll in industry and in homes. Newer methods of detection and research. Its physiology, pathology, symptomatology, and treatment.

- External Bone Plating for Long Bones*—C. A. Dukes, M. D., 601 Wakefield Building, 426 Seventeenth Street, Oakland.

Discussion opened by W. C. Adams, M. D.

Description of technique by H. R. Allen in 1914. Description of plate used by author. Lantern slides of types used since the paper of Lambotte in 1900. Use of plate in both compound and other fractures. New method of introduction of bolts into bone without long incision. Review of cases in which plate has been used. Author's impressions relative to use of external bone plating.

- The Relationship of Industrial Diseases to Public Health*—W. C. Hassler, M. D., 1085 Mission Street, San Francisco.

Discussion opened by J. L. Pomeroy, M. D.

Relation of industrial diseases to health and community problems; education of workers; co-operation of lodges, unions, insurance societies, in clinics, and demonstrations. Health cards to workmen after periodic examinations; physical surveys of workers with establishment of health standards; mortality and morbidity reports; uniform statistics. Cooperation with health authorities, welfare and social agencies; promotion of proper legislation; training of industrial physicians; periodic conference.

- Industrial Corneal Injuries*—Raymond F. Nutting, M. D., Medical Building, 1904 Franklin Street, Oakland.

Report of different types of corneal injuries seen in 1400 consecutive cases. Importance of proper diagnosis and treatment in these cases in regard to disability both from the standpoint of the employee and employer.

- Medical Problems of an Industrial Medical Director*—R. A. Jewett, M. D., 2525 East Thirty-seventh Street, Los Angeles.

Similarity of ideals of medicine and industry; working methods and results somewhat different; business administration foreign to physi-



cian; medical ethics foreign to business men; successful medical director understands both. Necessity of rendering service in the light of business administration and the securing of co-operation of employer and employee. Three main divisions of industrial medical service: (a) Care of the injured; (b) Safety, sanitation and hygiene; (c) Care of the sick.

#### SECOND MEETING

Auditorium, Memorial Hall

Tuesday, May 1, 2:30 p. m.

#### 1. Election of Officers.

#### 2. Isolated Tuberculosis of the Carpus—*Diagnosis and Treatment*—Merrill C. Mensor, M. D., 1214 Medico-Dental Building, 490 Post Street, San Francisco.

Discussion by Leonard Ely, M. D., and Emile Holman, M. D.

Presentation of the second reported case in medical literature of isolated tuberculosis of the carpal navicular with a new and conservative method of operative treatment and its subsequent course. The similarity between inflammatory and traumatic lesions in the carpus and the difficulty of differential diagnosis.

#### 3. The Trend in Industrial Dentistry, Including Some Observations in Europe—Guy Millberry, D. D. S., San Francisco.

Many industrial plants have introduced dental service into their general health service. One hundred per cent of all workers need dental service. How far shall this be projected into the industrial field? The general tendency in America is to limit it to emergency service examinations and prophylaxis. In Europe it is more widely inclusive, especially in Great Britain and Germany.

#### 4. Traumatic Pneumonia—Stewart V. Irwin, M. D., Dalziel Building, 532 Fifteenth Street, Oakland.

Discussion opened by Ernest Falconer, M. D.

Definition, diagnosis, clinical types, animal experiments, pulmonary tissue changes comparable to "traumatic pneumonia," lesions in humans demonstrated. Factors concerned in production of localized infectious process—hemorrhagic infiltration; its relationship to development of typical microbial pneumonia—course and prognosis. Injury and compensation for accidents.

#### 5. Organization Needs of Western Industrial Hygiene—W. P. Shepard, M. D., 600 Stockton Street, San Francisco.

Discussion opened by C. O. Sappington, M. D.

Diversity and uniqueness of industrial hygiene problems; illustrations from actual observations in the West. Similarity of industrial hygiene problems; need for interchange of ideas; constant menace of lack of funds; gap which exists between industrial hygiene departments and community health agencies. Advantage from an organization of industrial physicians; clearing house; standardization; pooling of results for mutual support. Suggestions for organization.

#### 6. Industrial Psychiatry—Jau Don Ball, M. D., 301 Flood Building, 870 Market Street, San Francisco.

Discussion opened by R. L. Richards, M. D.

1. The value of psychiatry, of specialists in human behavior to industrial and labor organizations. 2. Present-day attitude of employers and employees. 3. Methods of organizing in industry for industrial psychiatry. 4. Examples for widely divergent California industries that have attempted to use industrial psychiatry. 5. Outlook for the future of industrial psychiatry.

### NEUROPSYCHIATRY SECTION



V. H. PODSTAT, M. D.

V. H. PODSTAT, M. D.  
Chairman

404 Union Square  
Building  
350 Post Street  
San Francisco

SAMUEL D. INGHAM, M. D.  
Secretary

1252 Roosevelt  
Building  
727 West Seventh  
Street  
Los Angeles

#### FIRST MEETING

Room A, Auditorium  
Wednesday, May 2,  
2:30 p. m.

#### 1. Chairman's Address—*Mental Hygiene in Children*—V. H. Podstata, M. D.

#### 2. Non-Specific Protein Therapy in Mental and Nervous Diseases—H. Douglas Eaton, M. D., 811 Medical Office Building, 1136 West Sixth Street, Los Angeles.

A brief survey of the history and theory of non-specific protein therapy in medicine and neurology. The author's experience with non-specific therapy produced by the intravenous administration of typhoid vaccine in a series of approximately thirty cases during the last two years.

#### 3. Psychiatry in Action—Robert L. Richards, M. D., 409 Fitzhugh Building, 384 Post Street, San Francisco.

Discussion opened by Joseph Catton, M. D., San Francisco.

Covering some practical work in speed, accuracy, and results as compared with other medical work.

#### 4. Constitutional Psychopathy: A Condition, Social and Medico-Legal, not a Disease—Thomas J. Orbison, M. D., 503 Westlake Professional Building, 2007 Wilshire Boulevard, Los Angeles.

Discussion opened by Joseph Catton, M. D., San Francisco.

1. Its dominant characteristics are (a) hereditary taint; (b) hyperirritability or hypoirritability of the emotional sphere; (c) imbalance of "will"; (d) imbalance of judgment; (e) perimetric irregularities in the intellectual sphere. 2. Types. 3. Frequency. 4. Psychiatric, social, and medico-legal problem necessarily associated with this condition.

#### SECOND MEETING

Church, Fifteenth and J Streets

Thursday, May 3, 2:30 p. m.

#### 1. Narcolepsy—S. A. Kinnier Wilson, M. D., London, England.

#### 2. Intracerebral Hemorrhage After Injury—Howard C. Naffziger, M. D., 417 Fitzhugh Building, 384 Post Street, San Francisco, and O. W. Jones, Jr., M. D., University of California Hospital, San Francisco.

Three cases are presented illustrating single large intracerebral hemorrhages operated upon with recovery. Survey of the literature of "Spat

apoplexia." Comments on diagnosis and treatment.

3. *A New Method of Recording Tremor—With Some Account of Its Clinical Significance*—Henry G. Mehrtens, M. D., Lane Hospital, San Francisco, and Pearl S. Pouppirt, M. D., 2355 California Street, San Francisco.

Discussion opened by Walter Schaller, M. D., San Francisco.

The physiology of tremor. Older methods of recording. The new instrument with examples of its work. Showing the possibility of the analysis of tremors. The tremor of the normal individual. The possibility of grouping normal individuals on basis of their tremors. The parallel between tremor and personality. Demonstration of pathologic tremors. Effect of drugs on tremors.

4. *Mental Disturbances in Tumors of the Brain*—I. Leon Meyers, M. D., 517 Hillstreet Building, 817 South Hill Street, Los Angeles.

1. Mental changes resulting from general intracranial pressure. 2. Mental disturbances resulting from focal brain lesions. (a) Subtentorial lesions. (b) Frontal lobes. (c) Hypophysis. (d) Occipital lobe. (e) Temporal lobe.

## OBSTETRICS AND GYNECOLOGY SECTION



JOHN A. SPERRY, M. D.

JOHN A. SPERRY, M. D.  
Chairman  
903 Medico-Dental  
Building  
490 Post Street  
San Francisco

KARL L. SCHAUPP, M. D.  
Secretary  
835 Medico-Dental  
Building  
490 Post Street  
San Francisco

FIRST MEETING  
Church  
Fifteenth and J  
Streets  
Monday, April 30  
2:30 p. m.

1. Chairman's Address—*Partial Resection of Polycystic Ovaries*.

2. *Spontaneous Hematoma of the Abdominal Wall*—Alice F. Maxwell, M. D., University of California Hospital, Fourth and Parnassus Avenues, San Francisco.

Discussion opened by Ludwig A. Emge, M. D., San Francisco.

Review of literature. Material studied from standpoint of etiology, clinical symptoms, differential diagnosis, treatment, and prognosis. Presentation of a case of non-traumatic rupture of the epigastric artery, occurring in a woman late in pregnancy. Treatment.

3. *Ethical, Legal, and Clinical Aspects of Tubal Ligation*—Ludwig A. Emge, M. D., 506 Union Square Building, 350 Post Street, San Francisco.

Discussion opened by Olga McNeile, M. D., Los Angeles.

Medico-legal, ethical, and clinical aspects of sterilization of women. The California law is

considered in particular. Conscientious objections. Clinical indications, methods, and end-results. The clinical study is based on observations on material drawn from the Stanford women's clinic and the writer's private practice.

4. *Radiation Therapy in Uterine Fibromyomata*—W. E. Costolow, M. D., 1407 South Hope Street, Los Angeles.

Discussion opened by Clarence Toland, M. D., Los Angeles.

Experiences with radium and deep x-ray therapy in the treatment of over five hundred cases of uterine fibromyomata (1921 to 1926 inclusive). The location of the tumor is a more important factor in determining the type of treatment than the size of the growth or the age of the patient. In uncomplicated bleeding fibroids, radiation is the treatment of choice.

## SECOND MEETING

Church, Fifteenth and J Streets

Tuesday, May 1, 2:30 p. m.

1. *Uterine Bleeding in the Absence of Gross Pelvic Pathology*—C. F. Fluhmann, M. D., Stanford University Hospital, 2398 Sacramento Street, San Francisco.

Discussion opened by Frank W. Lynch, M. D., San Francisco.

A study of seventy-one cases. Classification based on clinical manifestation of bleeding. Finding from examination of curettings. Relation between clinical manifestation of bleeding and the histopathological examination. Immediate and remote causes of bleeding. Outline of treatment.

2. *Sterility*—Olga McNeile, M. D., 610-12 Westlake Professional Building, 2007 Wilshire Boulevard, Los Angeles.

Discussion opened by Ludwig A. Emge, M. D., San Francisco.

Common cause of sterility. Unusual causes. Sterility in the male. Sterility following abortions, prevention of conception and following abdominal section. Treatment. Results of various forms of treatment. Dangers. Percentage of pregnancy in my series of cases.

3. *Dry Labor*—Margaret Schulze, M. D., University of California Hospital, Fourth and Parnassus Avenues.

Discussion opened by Henry A. Stephenson, M. D., San Francisco.

Analysis of six hundred cases in which membranes ruptured before labor or with the first pain. Causes of premature rupture. Influences upon length of labor, type of pains, operative incidence, maternal morbidity, fetal mortality. Analysis of causes of fetal death. Results of induction of labor.

4. *Krukenberg Tumor of the Ovary with Report of Two Cases*—Roy E. Fallas, M. D., 625 Merchants National Bank Building, 548 South Spring Street, Los Angeles.

Discussion opened by John A. Sperry, M. D., San Francisco.

Résumé of cases reported. Report of two additional cases. Discussion of etiology, pathology, and prognosis.

# PATHOLOGY AND BACTERIOLOGY SECTION



ROY W. HAMMACK, M. D.

ROY W. HAMMACK, M. D.  
Chairman

1003 Pacific Mutual  
Building  
523 West Sixth Street  
Los Angeles

W. T. CUMMINS, M. D.  
Secretary  
Southern Pacific  
Hospital  
San Francisco

FIRST MEETING  
Room C, Auditorium  
Tuesday, May 1  
2:30 p. m.

## 1. Chairman's Address.

2. *Mussel-Poisoning in California*—Karl F. Meyer, Ph.D., Hooper Foundation, University of California, San Francisco.

Between July 14 and 19, 1927, approximately one hundred and two people living in the counties adjacent to San Francisco Bay were poisoned by eating mussels (*Mytilus californianus*) gathered on the coast. Six people (five men and one child) who had eaten nothing but mussels died with the clinical picture of the paralytic form of mussel-poisoning in from three to ten hours after the consumption of the steamed or raw shellfish. A highly potent nerve poison has been extracted and studied in the laboratory. The origin of the poison will be discussed.

3. *A Simple Conception of the Relation of Chronic Cystic Mastitis to Cancer of the Breast*—A. R. Kilgore, M.D., 724 Medico-Dental Building, 490 Post Street, San Francisco.

Chronic cystic mastitis, or abnormal involution can be divided into two distinct pathological types according as the epithelium of the individual gland element is hyperplastic or atrophied. The hypertrophic type would be expected to be precancerous and it is clinically confirmed. The reverse is true of the atrophic type. Predominance of either type presents distinctive gross pathological features, which are recognizable at the operating table and on which treatment may be based.

4. *The Bone Sarcoma Registry*—Edwin I. Bartlett, M.D., 1020 Medico-Dental Building, 490 Post Street, San Francisco.

The Bone Sarcoma Registry was founded by Codman in 1920. The committee has grown from three to eleven members. The purpose of the registry is the intensive study of this phase of pathology with the aid of clinical records, roentgenologic photographs, gross and microscopic material. One of the chief accomplishments has been the development of a classification. A survey is made of the work accomplished. The profession is invited to submit to the committee data of cases encountered in their practice.

5. *Clinical Value of Tuberculin Prepared from Non-Protein Culture Media—Skin Tests in Children*—Frederick Ebersson, M. D., and Ernst Wolff, M.D., University of California Hospital, San Francisco.

Five hundred and eighty children were tested intradermally with different tuberculin fractions and reactions are compared with O. T., and control culture media. A series of patients negative

to O. T. and retested at intervals with one fraction and O. T. for comparison showed with the fractions more extensive and intense reactions after twenty-four hours. Allergy, especially following treatment with improvement, could be measured with greater accuracy and the diagnostic property of the tuberculin fraction appeared to be superior to that of ordinary O. T.

## SECOND MEETING

Room C, Auditorium  
Thursday, May 3, 2:30 p. m.

1. *The Certification of Laboratories by the State Department of Health*—W. H. Kellogg, M. D., State Hygienic Laboratory, Berkeley.

The paper is a review of the operation of the system of voluntary laboratory approval by the State Board of Health, including the method of determining eligibility, the forms of certificates, the number of laboratories approved, analysis of laboratory situation regarding training and qualifications of workers, scope of work done, medical training of directors, etc., the new state law governing the approval of municipal laboratories and the certification of laboratory technicians by the State Department of Health.

2. *Protozoan Infestations in a Group of Medical Students—Effects of Stovarsol*—H. E. Butka, M. D., White Memorial Hospital, Los Angeles.

The work comprises a study of the findings in seventy-five medical students, including the type of parasites found and the results of the administration of stovarsol alone.

3. *Fibrous Myocarditis*—Franklin R. Nuzum, M. D., and Richard D. Evans, M. D., Cottage Hospital, Santa Barbara.

Fibrous myocarditis is one of the commonest of clinical diagnoses in terminal events and one which usually is not substantiated at the post-mortem examination. Necropsy statistics are analyzed to determine the actual incidence and cause of this condition. The justifiability of the clinical diagnosis, fibrosis of the myocardium, is discussed.

4. *The Combination of Carcinoma and Sarcoma, with Case Reports*—Ernest M. Hall, M. D., Stanford University Medical School, San Francisco.

Ten cases are reported in which carcinoma and sarcoma occur together in the same tumor. Although these are comparatively rare tumors, five have been observed in the Stanford pathological laboratory during the past year. The literature is reviewed and probable etiology discussed. Gross and histological descriptions are accompanied by lantern slides.

5. *Sarcoma of the Thyroid*—Elmer W. Smith, M. D., St. Mary's Hospital, San Francisco.

A brief résumé of the rather scanty and somewhat indefinite literature is presented. Stress is laid upon the possibilities of confusion that may arise with regard to embryonal carcinomas which are occasionally encountered and which may be mistaken for sarcomas. The subject was suggested to the author after studying two cases of lymphomatous tumor of the thyroid. Data will be presented.

6. *Total Base in Gastric Secretions*—Katherine M. Close, M. D., Professional Building, 1052 West Sixth Street, Los Angeles.

Subject is introduced by an historical résumé. Objects of author's experiments were as follows: 1. To prove presence of base in gastric secretion. 2. Its secretion by gastric mucosa. 3. Its variations during secretory phase. 4. Its variations in gastro-enterostomy cases, etc. Stimulant was histamin. The human and the dog's stomach were studied. The results are discussed.



## PEDIATRICS SECTION



A. J. SCOTT, M. D.

A. J. SCOTT, M. D.  
Chairman  
900 California Medical  
Building  
1401 South Hope  
Street  
Los Angeles

FRANCIS S. SMYTH, M. D.  
Secretary  
University of California  
Hospital  
Fourth and Parnassus  
Avenues  
San Francisco

FIRST MEETING  
Little Theater  
Auditorium  
Wednesday, May 2  
2:30 p. m.

Later a third, prenatal hygiene, was added. Today all three in a closely interlocking scheme are considered necessary. Various new phases in the development of preventive medical education are considered. (Lantern slides.)

## SECOND MEETING

Clinic at the Sutter Hospital  
Twenty-Eighth and L Streets  
Thursday, May 3, 2:30 p. m.

## Clinic on Poliomyelitis.\*

Cases presented by Edward Saunders Babcock, M. D., 205 Physicians Building, 1027 Tenth Street, Sacramento.

Discussion by William Palmer Lucas, M. D., San Francisco; Clain Fanning Gelston, M. D., San Francisco; and Edward B. Shaw, M. D., San Francisco.

\* Cars and buses will leave the Auditorium and the Senator Hotel to take visitors to the Clinic on Poliomyelitis at the Sutter Hospital.

1. Chairman's Address—*Activities of Los Angeles Heart Board*—A. J. Scott, M. D.

Organization and foundation of the board. General types of heart cases seen. General management of heart cases—the general rationale of the treatment is given.

2. *Work of Armand-Delille on the Development of Tuberculous Lesions in the Lungs of Infants*—Langley Porter, M. D., University of California Hospital, Fourth and Parnassus Avenues, San Francisco. (To be read by Clain Fanning Gelston, M. D., 409 Fitzhugh Building, 384 Post Street, San Francisco.)

The slides, which were prepared by Dr. Paul F. Armand-Delille of Paris, illustrate the development of the lung lesions in infants exposed to known contacts, together with sections showing the postmortem condition in the lungs of each individual.

3. *Tuberculosis in Infants and Young Children*—Lloyd B. Dickey, M. D., Stanford University Medical School, 2398 Sacramento Street, San Francisco.

Although the mortality of tuberculosis in the very young is quite high as compared with adult tuberculosis, it is probably not nearly so high as is generally believed. Many infants and young children, some with definite histories of intimate exposures, are capable of taking care of tuberculous infections to a satisfactory degree. Case reports, with roentgenograms, are submitted, illustrative of this.

4. *Hearing Impairments in Children*—Lawrence K. Gundrum, M. D., 1920 Wilshire Boulevard, Los Angeles.

Cause of deafness; nose, throat, and general conditions. Deaf children from clinics and private practice tested with the Jones-Knudsen audio-amplifier. Cause when possible was determined. Treatment: removal of infected tonsils and adenoids; treatment of sinusitis; hygienic measures instituted; removal of infected lymph tissue in pharynx, etc. Tests made at one, two, and six months' intervals and at end of year. Improvement in majority of cases.

5. *Child Hygiene Division of Los Angeles County Health Department*—Elisabeth M. Saphro, M. D., 330 North Broadway, Los Angeles.

Child hygiene began along two different lines in America: infant hygiene and school hygiene.

## RADIOLOGY SECTION



HAROLD ZIMMERMAN, M. D.

H. ZIMMERMAN, M. D.  
Chairman  
610 Physicians  
Building  
1027 Tenth Street  
Sacramento

ROBERT F. KILE, M. D.  
Secretary  
St. Francis Hospital  
900 Hyde Street  
San Francisco

FIRST MEETING  
Room B  
Auditorium  
Tuesday, May 1  
2:30 p. m.

1. *Foreign Bodies in the Bronchus*—James B. Bullitt, M. D., 208 St. Claire Building, San Jose.

Discussion opened by R. G. Karshner, M. D.

A new symptom. Foreign body (walnut kernel) in bronchus. Spontaneous extrusion. A new fluoroscopic symptom—the bronchus being blocked, the foreign body acting as a valve, the side affected showed air distention; the new symptom consisted in the fluoroscopic observation of the displacement toward the affected side of the heart with each inspiration.

2. *The Diagnostic Value of Dental Radiographs*—Paul J. Boyens, D. D. S., San Francisco.

Discussion opened by L. C. Kinney, M. D.

1. Normal alveolar process showing those constant and indisputable signs which constitute the normal (and healthy). 2. Telltale changes denoting the earliest departures from the normal—also progressively increasing lesions. 3. How to avoid deception through anatomic variations. 4. Pyorrheal absorption—insipient, advanced and hopeless stages. 5. Retained or residual infections in edentulous mouths. 6. Infections not visible in the radiograph, and how they may be

determined. 7. Dental abnormalities, other than those of an infectious nature, which may cause systemic reactions. (Lantern slides.)

3. *Experience in Treatment of Malignancy with Colloidal Lead, with and without Irradiation*—D. S. Pulford, M. D., and J. D. Lawson, M. D., Woodland Clinic, Woodland.

Discussion opened by Albert Soiland, M. D.

Experience in treatment of malignancy with colloidal lead, with and without irradiation. A preliminary report on some thirty cases of malignancy treated with lead, with autopsy findings in six cases, especially the effect of lead on malignant cells.

4. *Indication and Contraindication for X-Ray Therapy in Fibroid Tumors*—Fred Lindenberg, M. D., 1244 Roosevelt Building, 727 West Seventh Street, Los Angeles.

Discussion opened by A. C. Seifert, M. D.

Fibromyomata do not represent a pathological uniformity, but vary in their construction. Accordingly their treatment varies depending upon the site of development, and their degenerative changes. Only a certain percentage of fibroids are responsive to x-ray therapy. I wish therefore to stress the importance of surgical interference in those cases of fibromyomata in which radio therapy is of doubtful benefit.

#### SECOND MEETING

Room D, Auditorium

Wednesday, May 2, 2:30 p. m.

1. *Infected Antra in Children*—D. M. Ghrist, M. D., 215 Lawson Building, Glendale.

Discussion opened by Harold Zimmerman, M. D.

We have noted that rather a large per cent of children suffering from colds in head do not obtain relief from the removal of tonsils and adenoids. Of this persistent group, we find surprisingly many have antrum involvement which can be demonstrated roentgenologically. (Lantern slides.)

2. *Fluoroscopy Examination of Paranasal Sinuses*—Robert A. Powers, M. D., 1319 Tasso Street, Palo Alto.

Discussion opened by Harold Zimmerman, M. D.

The frequency of contributing paranasal sinus infection in bronchopulmonary disease. Recent articles on this subject. Information concerning the sinuses which may be obtained during routine fluoroscopy. Limitations of fluoroscopy; not a substitute for radiography. Fluoroscopic findings checked by radiography in fifty cases.

3. *Functional Disorders of Gastro-Intestinal Tract as Shown by the X-Ray*—H. E. Ruggles, M. D., 320 Fitzhugh Building, 384 Post Street, San Francisco.

Discussion opened by R. G. Taylor, M. D.

Everyday evidence of nervous influence upon the gastro-intestinal tract, subjective and objective. Direct evidence afforded by roentgenological observation, showing changes in stomach, duodenum and colon, due to emotional factors.

4. *Modified Technique to Obtain Rapid Pyelograms with Patient Under an Anesthetic*—John R. O'Neill, M. D., St. Francis Hospital, 900 Hyde Street, San Francisco.

Discussion opened by I. S. Ingber, M. D.

A method is described to reduce the time of exposure to one-quarter second, in order that distortion, due to movement, may be reduced to a minimum.

#### UROLOGY SECTION



E. SPENCE DE PUY, M. D.  
Chairman

202 Dalziel Building  
532 Fifteenth Street  
Oakland

WILBUR B. PARKER, M. D.  
Secretary

Brack Shop Building  
527 West Seventh  
Street  
Los Angeles

#### FIRST MEETING

Auditorium, Room C  
Monday, April 30  
2:30 p. m.

E. SPENCE DE PUY, M. D.

1. Chairman's Address.

2. *Experience with the Colling's Electrotome*—Charles S. Vivian, M. D., Phoenix, Arizona, and Robert V. Day, M. D., 704 Detwiler Building, 412 West Sixth Street, Los Angeles.

Discussion opened by Miley B. Wesson, M. D.

The principles of the treatment. Type of case suitable. Brief description of typical cases and technique of treatment. Bladder neck obstruction. Growths and obstructions in the posterior urethra. Growths in the bladder. Results obtained. Limitations of the instrument. Summary and conclusions.

3. *Traumatic Hydrocele*—Miley B. Wesson, M. D., 1275 Flood Building, 870 Market Street, San Francisco.

Discussion opened by Otto R. Frasch, M. D.

Trauma of questionable importance as etiological factor of hydrocele. Expediency and economic factors encourage tendency to ignore the fundamental underlying infection and to emphasize strain or bruise. Traumatic hydrocele becoming a popular diagnosis and correspondingly expensive to employers of labor. Literature is reviewed; cases reported in abstract.

4. *Diphtheritic Membrane on Bladder Trigone*—Nathan Hale, M. D., 400 Capital National Bank Building, 700 J Street, Sacramento.

Discussion opened by Robert V. Day, M. D.

Case report of diphtheritic membrane on bladder trigone with diphtheria bacilli present in the urine.

5. *Treatment of Malignant Tumors of the Bladder—Special Reference to Surgical Diathermy*—William E. Stevens, M. D., Flood Building, 870 Market Street, San Francisco.

Discussion opened by Joseph Walker, M. D.

Review of literature. Relative value of surgical diathermy, surgery, radium, and roentgen therapy. Case reports. Conclusions.

#### SECOND MEETING

Room C, Auditorium

Wednesday, May 2, 2:30 p. m.

1. *Radiation Treatment of Certain Kidney Disorders with Special Reference to Hypernephroma*—Albert Soiland, M. D.; William E. Costolow, M. D.; Orville N. Meland, M. D., 1407 South Hope Street, Los Angeles.

Discussion opened by Lloyd Bryan, M. D.

The important uses of radiation in kidney conditions are (1) in checking kidney and bladder hemorrhage; (2) in tuberculous infections, especially postoperative tuberculous sinuses; (3) in the destruction of certain neoplasms, especially

hypernephroma. Report of an inoperable hypernephroma case, well five and one-half years after radiation treatment.

2. *Fatal Embolus Due to Inflation of Bladder with Air*—Charles P. Mathé, M. D., 844 Phelan Building, 760 Market Street, San Francisco.

Discussion opened by Charles S. Vivian, M. D.

1. Occurrence of fatal embolus due to inflation of bladder with air. Incidence obtained from questionnaire and literature. 2. Etiology. Air harmless in normal bladder. Bladder lesions, however, facilitate entrance into blood stream. 3. Case report. 4. Conclusions condemning dilatation with air and suggesting inflation with mild antiseptic solutions only.

3. *Leukoplakia of the Kidney Pelvis*—Adolph A. Kutzmann, M. D., 403 Professional Building, 1052 West Sixth Street, Los Angeles.

Discussion opened by Thomas E. Gibson, M. D.

Leukoplakia of the kidney pelvis, important: because of (1) relative rarity; (2) relationship to malignancy; (3) unknown etiology and pathogenesis. Case reported. Etiology, two theories: (1) Process one of metaplasia or adaption by cornification to an inflammatory environment. (2) Misplaced embryonal rests of primitive ectoderm. Symptomatology, that of associated urinary condition; a chronic infection upon some definite organic lesion. Treatment: Nephrectomy, when confined to one kidney; palliative, in the form of renal pelvic lavage.

4. *Ureterography with the Dilating Catheter*—Henry A. R. Kreutzmann, M. D., 406 Central Medical Building, 1195 Bush Street, San Francisco.

Discussion opened by William Stevens, M. D., San Francisco.

Dilating catheter, devised by author, used to study the human ureter. Inserted just beyond ureteral orifice, an excellent picture of normal ureter for entire length and relation to the surrounding structures is demonstrated. Points of constriction and dilatation clearly shown. Pictures, taken in erect posture, show effect of change of position of kidney on upper third of ureter. Method of use and cases in which use indicated explained in detail.

5. *Bladder Pressure and Volume Determination as an Aid in Diagnosis, and the Description of a New Recording Instrument*—Francis E. Redewill, M. D., 686 Flood Building, 870 Market Street, San Francisco.

Physiology of filling and emptying of bladder. Study by use of fluoroscope with barium injection fluid. Determination of pressure and volume taken by new instrument devised by writer. Enervation of bladder showing value of new instrument in helping to make differential diagnosis of injury to nerves, and determine type of obstructions. Chart showing bladder readings. (Instrument will be displayed and lantern slides demonstrating its use, shown.)

## ENTERTAINMENT COMMITTEE

### For Women Guests

MRS. FREDERICK F. GUNDRUM, Chairman

Mrs. Andrew M. Henderson  
Mrs. George A. Spencer  
Mrs. Junius B. Harris  
Mrs. William A. Lindsay  
Mrs. Charles B. Jones

Mrs. George A. Briggs,  
Mrs. Gustave Wilson  
Mrs. G. Parker Dillon  
Mrs. Charles B. McKee  
Mrs. Frederick F. Scatena

Mrs. Charles E. von Geldern



## ENTERTAINMENT PROGRAM

### Fifty-Seventh Annual Session, California Medical Association, Sacramento, April 30 to May 3

An attractive and varied program of entertainment, amusement and recreation has been planned for those who will be in Sacramento for the fifty-seventh annual session of the California Medical Association, April 30 to May 3.

Through the Sacramento Society for Medical Improvement, Sacramento will extend the old-time hospitality for which the community has been famed since the days of '49.

There will be a dinner dance, golf tournament, trap shoot, fishing, interfraternity dinner, social activities for women, and a trip to the gold mines of the famous Mother Lode section.

#### Dinner Dance

The dinner dance will be held Tuesday night, May 1, at the Hotel Senator. This will be a gala occasion. It will be a brilliant affair, with excellent music, favors, dancing, a fine dinner, attended by the ex-presidents, honorary members, and distinguished guests. This event will be a time for the renewal of old friendships, the making of new friends, and the full enjoyment of an annual occasion which will mark the height of the social activity in connection with the session. The dinner dance will begin at 7:30 o'clock. Be sure to get banquet tickets when registering at headquarters at the Memorial Auditorium.

#### Golf Tournament

A golf tournament will be held at the Del Paso Country Club, beginning at 8 o'clock on the morning of May 1. The course on which this will be held is one of the finest in the state. There will be trophies for the first, second, and third low net scores and for the first, second, and third low gross scores. One of these handsome trophies is donated by President Percy T. Phillips. A buffet luncheon will be furnished by the committee in charge at the clubhouse following the tournament. Transportation will be provided to and from the golf links for those who do not have their own cars. Boy Scouts and road signs will direct participants to the links. All registrations will be made at the golf desk in the Memorial Auditorium headquarters on April 30. Bring your clubs!

#### Trap Shoot

The trap shoot will begin at 9 o'clock on the morning of May 1. The shoot will be at the traps adjoining Lindbergh Aviation Field, Auburn Boulevard. There will be three events: fifty sixteen-yard targets; twenty-five handicap targets (A. T. A. rating will govern handicap) and twenty-five pairs of doubles, sixteen yards. A luncheon will be served by the committee at the clubhouse on the grounds.

There will be merchandise prizes to high gun and runner-up in each event. Shells of all makes can be purchased at the club grounds at club rates. Targets at three cents each covers all entry fees.

A registration bureau will be maintained at registration headquarters in the Memorial Auditorium to

accommodate entrants. The entry list is now open. Participants should communicate as early as possible with Dr. C. E. Schoff, chairman of the trap shoot committee, Farmers and Mechanics Bank Building, Sacramento.

The traps, which are those of the Sacramento Trap Shooting Club, constitute one of the best grounds this side of the Mississippi River. The foreground is ideal; there is plenty of shade; a new clubhouse; four concrete trap houses, fitted with Wonder traps; plenty of shade and plenty of parking space for autos. The grounds are within easy access of the city, just off a paved highway. The shoot will be handled by experienced members of the Sacramento Trap Shooting Club, which will insure a pleasant morning's recreation. There will be road signs and Boy Scouts to direct participants to the shooting grounds. Transportation will be provided to and from the grounds for those who do not have their own cars. Don't forget to bring your gun!

#### Trout-Fishing Trip

The disciples of Isaac Walton have a treat in store for them. The fishing season opens May 1. Arrangements have been made for a wonderful trout-fishing trip that day to fine streams about thirty miles east of Sacramento. Transportation will be provided for the fishermen and there will be guides who know right where the big fellows are waiting for the hook. Bring along your rods, tackle and boots. Angling licenses may be obtained at the trout-fishing desk at the California Medical Association headquarters in the Memorial Auditorium, April 30. This is a rare opportunity for the anglers.

#### Interfraternity Dinner-Smoker

The interfraternity dinner-smoker will be held April 30, beginning at 6:30 o'clock in the evening. It will be held at the Elks' Club, one of the newest and finest structures of its kind in the country. A desk will be maintained April 30 at the California Medical Association headquarters for reservations for this affair.

#### Trip Planned to Grass Valley Gold Quartz Mines

For members interested in visiting gold quartz mines a trip to the Grass Valley mines has been arranged for the morning of May 1. Some of these mines have been operating over seventy years and are down 8600 feet. The gold-bearing gravels are said yet to have in them today at least \$250,000,000 of the precious metal.

Nevada County saw the beginning of both sluice and hydraulic mining. The first gold ledge was discovered and the first gold quartz mill located in Grass Valley.

For members who desire a subterranean excursion the Nevada County Board of Promotion have promised to supply boots and necessary paraphernalia.

## FIFTY-SEVENTH ANNUAL MEETING C. M. A., AT SACRAMENTO

April 30 to May 3, 1928

### Outline of Varied Program of Entertainment

All roads will lead to Sacramento for delegates to the California State Medical Association's annual convention in California's beautiful capital city, April 30 to May 3.

Sacramento then will be at its glorious best to welcome them at this spring season. Wild flowers by the hundreds of acres will mantle its surrounding hills and border its highways, rivaled only by the man-made glory of thousands of spreading acres of fresh green new-leaved deciduous orchards.

Sacramento makes the ideal starting point from which to see the Golden State's most gorgeous wonderland—spicy forests and snow-capped mountain peaks, giant redwoods and whispering pines, rivers and waterfalls, geysers and hot springs, rock-ribbed cliffs and the whispering waves of bathing beaches—an ever changing vista of coast line, mountain, and valley.

The four great national parks in California are in this northern California region, five of its six national monuments, fourteen of its eighteen national forests. Truly Paradise land for the hunter, the fisherman, or the seeker after rest and recreation.

And the hub is Sacramento, around whose early history and the discovery of gold has been written the romance of the Golden State. The radiating routes to the region of forests and lakes take one over the paved highways which mark the trails first broken by Kit Carson and General Fremont, through canyons and along streams once populous with the gold-mad miners of '49 and '50, into the land made famous in song and story by Bret Harte, Mark Twain, and Joaquin Miller.

Eastward but four hours by automobile is Tahoe, beautiful "Lake of the Skies," at the very summit of the Sierras, 6225 feet above sea level, its seventy-two miles of shore line dotted with summer resorts and the favorite summer playground for increasing thousands each year. It is reached by the Lincoln Highway route through Placerville and the scenic American River canyon, or via Auburn and the Victory Highway through a land equally inspiring.

Westward, less than four hours, is the Pacific Ocean and the land of geysers, lakes, and medicinal hot springs in the Lake County section, "The Switzerland of America."

Northward is the beautiful canyon of the Feather River; Lassen Volcanic National Park with its smoking crater, the only active volcano in continental United States; and Shasta, "God's First Mountain" to the Klamath Indians, its everlasting snow-crowned summit, 14,161 feet, visible from the highways of the valley for more than a hundred miles.

And southward, through the Bret Harte country and the historic Mother Lode are the Calaveras Big Tree Groves, first discovered and most northerly of the giant redwoods, and incomparable, indescribable Yosemite.

Several interesting trips to outstanding points of interest are being planned by the Sacramento committees—even to trout-fishing excursions for some of the Isaac Waltons, for the trout season opens April 1.

With the promise of these trips, added to the attractions which Sacramento itself has to offer and to the interest in the business sessions of the convention, all roads, indeed, will lead to Sacramento for members of the state medical profession.

### TRAIN, STAGE, OR AUTO

Sacramento's location makes it exceedingly accessible from all parts of California, whether delegates

plan to come by train, by stage, or by private motor.

Three railroads serve the state capital—the Southern Pacific, Western Pacific, and Santa Fe, in addition to the interurban electric lines from San Francisco, from Stockton, and from Chico.

For the southern California delegates, the popular train out of Los Angeles will be the West Coast Limited, the direct train from the southland, which leaves Los Angeles at 6:10 in the evening, arriving in Sacramento, without change, at 9 o'clock the next morning. Others will elect to make the trip by way of San Francisco, either on the Lark out of Los Angeles at 8 p. m., arriving in San Francisco at 9:30 a. m., or the Sunset Limited, leaving at 6:25 p. m. and arriving at 8:15 a. m. Those who choose this route can take the Sacramento train out of San Francisco at 10 a. m., arriving in the convention city at 1:15 p. m. Still others may desire to make the entire trip by daylight, in which case they will select the Daylight Limited out of Los Angeles at 7:45 a. m., arriving in San Francisco at 7:45 p. m., boarding the Statesman next morning at 7:40 and arriving in Sacramento at 10:30 a. m.

The Western Pacific will serve many in the San Francisco Bay region and other sections of the north, as will also the Santa Fe, with its electric connections from Stockton.

Four stages daily out of Los Angeles, and stage line connections with every other section of California will be available to those who prefer to travel in that manner.

### BOAT TRIP SUGGESTED

For those who come or return by train through San Francisco, a trip one way by river steamer will prove a most delightful and restful diversion. Palatial steamers operate on daily schedule every night except Sunday between San Francisco and Sacramento, leaving the terminal points each evening at 6:30. The new Delta King and Delta Queen of the California Transportation Company are the finest river steamers ever built, costing in excess of one million dollars each. No hotel in the land is fitted more royally than are these boats. For a restful night trip there is nothing finer available.

### FOR THE MOTORIST

Motorists from the southland have the choice of two interesting and scenic routes to Sacramento. The shorter, over the Ridge Route and through the great San Joaquin Valley, is the Golden State Highway, through Stockton, 406 miles from Los Angeles to Sacramento. This traverses the heart of the great inland valley of the state, in view, for more than half the distance, of the snow-capped Sierra Mountains.

Either coming or going over this route the delegates from southern California should plan a side trip from Merced over the all-year highway into Yosemite Valley, which at this season of the year is at its wonderful best. The waterfalls, one of Yosemite's most beautiful and interesting features, are swollen to full power at this early season, affording a sight that is not given to visitors later in the summer. If a weekend visit is planned, reservations at this season must be made in advance.

The alternate route from the south is via the Coast highway, a trip of countless beautiful ocean views, 412 miles from Los Angeles to San Francisco. Out of San Francisco two alternate routes to Sacramento are offered, one via the Carquinez bridge, greatest structure of its kind in the world, through beautiful Napa County, and past the State College of Agriculture at Davis.

The other route, a new one just recently completed and which visitors are urged not to miss, is by way of the Antioch bridge and up the river highway into Sacramento. This route travels for miles along the river levee, through the heart of the "Netherlands of America," a level garden, 120,000 acres in extent, of the richest and most productive fruit and vegetable

land in the Golden State. The trip over this route is 103 miles, and although ten miles longer than the route by way of Carquinez, is well worth the time.

Motorists from the north, coming down over the Pacific Highway, have the choice from Red Bluff of either the so-called West Side or East Side highways, each with its individual attraction.

Two transcontinental highways, the Victory and Lincoln, enter California from the East through the Sacramento gateway.

#### WHAT TO SEE IN SACRAMENTO

Sacramento, one of California's most historic cities, and one of its most attractive, will have many things of interest for the delegates to the medical convention and their guests.

Half a day can be spent, and at least a part of that time should be spent by every visitor in the state museum at old Sutter's Fort. This historic place, completely restored to its original form, marked the founding of Sacramento in 1839 as the first settlement in inland California—in reality cradled the real California of today. Here Captain Sutter, its founder, laid the foundation for California's present agricultural wealth; here, with the discovery of gold by James Marshall, one of Sutter's men, in 1848, began the migration to the Golden State in the historic gold rush of '49 and '50, which advanced western civilization by at least half a century and so quickly populated the state that it was admitted full-fledged to the Union on September 9, 1850.

Maintained by the state, the museum contains a collection of relics of the pioneer and gold-rush days which every lover of California history will find joy in viewing. Here are preserved the ore wagons and stage coaches of those "days of gold," the tools and weapons and accoutrements of the forty-niners, the spurs and saddles of the riders of the Pony Express, and countless other treasures whose value increases with the years.

#### CROCKER ART GALLERY

Lovers of art will find a wonderful collection, and one of the largest in the West, in the Crocker Art Gallery, given to the city of Sacramento by the famous Crocker family whose name is written large in the early, as well as the later history of California.

#### THE CAPITOL

The \$8,000,000 group of stately capitol buildings, with its wonderful state library and other interesting departments, and forty-acre Capitol Park, with its trees and shrubbery from all parts of the world, will hold interest for every visitor.

One of Sacramento's beauties first remarked by visitors is its magnificent tree-lined streets. Giant elms lock branches overhead to form mile on mile of shaded lanes, and from an elevation, the older residence districts of the city appear almost hidden in the forest of trees.

#### GREAT CANNERIES

Many of its industrial plants will prove of interest. Its canneries, which will be getting under full blast for the season's run of fruits and vegetables, may be visited. Three of Sacramento's canneries are the largest in the state, and two of them the largest plants of their kind in the world. The recently completed American Can Company plant, where many of the cans are made in which California's fruits and vegetables are sent to the markets of the world, will be another industry worth seeing.

#### HOSPITALS

Perhaps of first interest to the medical men of the state will be the splendid hospitals, which rank among the foremost institutions in the state in the completeness of their facilities.

Above all, each visitor is certain to feel and appreciate the splendid spirit of hospitality for which Sac-

ramento is justly and widely famed. The capital city will offer a taste of true western cordiality which will live long in the memory of every delegate and every visitor.

#### TRIPS OUT OF SACRAMENTO

Several trips of exceptional interest will be made available to the convention delegates.

"The Old Gold Trail," one of the first trips chosen by eastern visitors, is of equal interest to Californians. It is a short trip of 116 miles, vibrant with historic interest, to Coloma, on the south fork of the American River, where gold was discovered by James W. Marshall on January 24, 1848.

It will take you through Folsom, first outpost from Sutter's Fort in the gold-rush days and terminus of the first twenty-two miles of railroad built in California; through El Dorado, once a populous gold camp, to Placerville, the "Hangtown" of the early fifties. Thence down into the beautiful canyon of the American River to Coloma, where the giant statue of Marshall points to the spot on the river below where the epochal discovery of gold was made in the mill race on Sutter's mill.

On to Auburn, a beautiful little city which still has much of early-day interest, and back through the Orangevale and Fair Oaks section, Sacramento's prosperous and growing orange and olive district and one of its most attractive fruit-growing sections.

#### INTO BRET HARTE LAND

Another trip is that into the Mother Lode country, frequently designated the "Bret Harte Country," where are many of the now almost "ghost cities" preserved to memory in the writings of Harte and Mark Twain.

Out through Perkins and Slough House, through the scenes of the old hydraulic washings, you come to Dry Town, Amador City, Sutter Creek, and Jackson. All these are famous towns of the early mining days, and the smooth paved roads over which your automobile travels were once rough trails which echoed to the pound of hoofs of the stage-coach teams and the startling cry, "Hands up!" of the picturesque highwaymen.

At Jackson are the great Argonaut and Kennedy mines, still extracting rich toll from the Mother Lode, their workings more than a mile underground.

The trip can be continued with unflagging interest to San Andreas, Angels Camp and farther southward, but the customary destination is the Calaveras Big Tree Grove, northernmost of the groves of giant redwoods, "sequoia gigantea," and one of the finest collections still remaining of these great trees, old when Christ was born. A side trip should be made from Murphys to Mercer's Cave and to Moaning Cave, two of the largest and most wonderful of California's subterranean marvels.

#### TO GRASS VALLEY

Another famous section of California's mining country can be visited at Grass Valley and Nevada City, in a trip of 158 miles, through Auburn into this noted region, and back by way of Marysville and the Garden Highway.

At Grass Valley the great Empire and North Star mines, which have been producing gold for sixty-five years, and are two of the richest and deepest mines in the world, may be visited. Nevada City, four miles beyond, is even more picturesque in its reminders of the early days, and is still the center of an area of producing mines.

Then over the old gold trail through Rough and Ready and other historic camps now only memories, to Marysville, center of a rich agricultural area and scene of gold-dredging operations, where the gravels



of the Yuba River have yielded placer gold for many years. Then across Feather River to Yuba City, county seat of Sutter, greatest peach-producing county in the world, and return to Sacramento over the Garden Highway, which follows the levees of the Feather and Sacramento rivers through the heart of one of the richest and most productive orchard sections in all the world.

#### TO THE DELTA DISTRICT

A variation from the mountain trips, but of equal interest, is the drive down the Sacramento River, where the highway follows along the top of the river levee through the tremendously fertile and productive delta of the Sacramento, an area becoming famed as "The Netherlands of America." Here are 120,000 acres of garden land, the deposit of centuries of overflow from the river, now safely reclaimed and protected from flood, and yielding immense crops of every known American vegetable. Nearly 50,000 acres is planted to asparagus alone, and the canneries along the river-front, and in Sacramento, put up each year 95 per cent of the world's supply of canned asparagus. Celery, spinach, beets, onions and all the other members of the vegetable family are grown, not in backyard gardens, but in tracts of hundreds and thousands of acres.

From Rio Vista a highway leads across the delta country to Fairfield, and the round trip of 110 miles can be finished by the return through the college town of Davis, seat of California's agricultural college, which is developing rapidly into one of the most important educational institutions in the state. The return to Sacramento is via the Yolo Causeway, a "road on stilts" for many miles in spanning the Yolo bypass, wasteway for the Sacramento River in flood time.

#### INTO HIGHER MOUNTAINS

It is probable, from present indications, that the roads into Lake Tahoe and the higher mountain wonderlands will be open to travel by the first of April this year. If so, dozens of other trips of interest and beauty, too numerous to detail here, will be available.

Certain it is that some of the visitors will be permitted to forget the worries of practice for a day or two in fishing trips which are being planned—for April first marks the opening of the trout season, and this part of California is "fisherman's paradise."

Delegates and their friends should plan the trip to the convention in Sacramento as a holiday trip, and arrange to stay over for several days in order to see all they can find time for in this beautiful and interesting section of the Golden State.

#### THOMAS M. LOGAN, M.D.\*

**California Pioneer in Public Health and Medical Organization Work—One of the Founders of the California Medical Association**

Public health work in California began with the arrival in San Francisco of Dr. Thomas M. Logan in January of 1850. He had sailed around the Horn from New Orleans in a small schooner, which had consumed four months in rounding the Cape.

Doctor Logan was born in Charleston, South Carolina, July 31, 1808. He was the son of Dr. George Logan, who had practiced medicine in Charleston for many years. Dr. Thomas M. Logan graduated from the Medical College of South Carolina in 1828, follow-

ing which he began the practice of medicine in Charleston. In 1832 he went to Europe and passed a year in attendance at the hospitals and clinical lectures in London and Paris. The first epidemic of Asiatic cholera in Europe occurred at about this time, and Doctor Logan was privileged to study this disease with much care. He returned to Charleston where he again took up the practice of medicine, remaining there until 1843, when he moved to New Orleans. In his new location he became a member of the staff of the Charity Hospital and later, in 1847, he received the appointment of visiting surgeon to the Luzenberg Hospital, established by the United States Government for the accommodation of soldiers returning from the campaign in Mexico. This hospital was closed in 1849, following which Doctor Logan took passage for San Francisco.

Shortly after his arrival in California, Doctor Logan became physician to the Strangers' Friend Society, which was apparently a welfare organization established for the purpose of rendering aid to stragglers in the vast horde of immigrants flocking to California to partake of the feast of gold in the El Dorado. Very much disillusioned, homesick, and in a run down physical condition, he tarried in San Francisco until April, when he left for a trip to the gold fields in order to recruit exhausted energy.

Stopping at Sacramento, he found that camp inundated. It was necessary to use small foot bridges in order to cross the streets, and in some places boats were improvised to carry pedestrians across the flooded thoroughfares. The mining regions of the Yuba and Feather rivers offered no attraction to him, and Hangtown, now called Placerville, in the American River country, did not appeal to him as a place for permanent residence.

He returned to Sacramento in August of 1850 when he immediately began the practice of medicine, laying the foundations of public health work in California, and remaining in that city until his death on February 13, 1876.

#### HIS OBSERVATIONS ON THE CLIMATE OF CALIFORNIA

Doctor Logan's hobby was meteorology and medical topography. He had procured scientific instruments from the Smithsonian Institute in Washington which he set up and used continuously in making measurements of precipitation, temperature, humidity, wind velocity, etc. His records of the weather in Sacramento from 1850 to 1870 were incorporated into the records of the United States Weather Bureau upon its establishment in 1870.

His interest in the climatic, social and medical conditions in his new home state was most intense.

#### STUDIES CONCERNING ENDEMIC DISEASES

The status of endemic diseases and the differentiation between communicable diseases in California and in the eastern and southern states became objects of close study. There was no organization of the medical profession in those pioneer days, and Doctor Logan experienced great difficulty in obtaining desired information from medical colleagues. He knew that fellow practitioners were obtaining valuable information relative to the cause and treatment of many diseases. Some of them were withholding such information, however, for their own personal benefit and evinced no desire to impart such information to other practitioners. He made the acquaintance of a small number of medical men who were willing to provide him with such epidemiologic data as they might

\* Written by Guy P. Jones, of the Department of Publications of the California State Board of Health.



gather and who were willing to reply to his questionnaires relative to the possible relationship between weather and disease. Such men were few, however, and in general, there was an utter lack of cooperation between the medical men of the early fifties.

It was not until the arrival of Dr. E. S. Cooper in 1855, that definite progress was made in organizing the medical profession in California. Doctor Cooper had come to San Francisco from Peoria, Illinois, where he had been a most successful surgeon. In San Francisco he took over the chair of physiology in the medical department of the College of the Pacific.

#### ORGANIZATION OF THE CALIFORNIA STATE MEDICAL SOCIETY

Logan and Cooper possessed the scientific spirit, and their acquaintance and friendship led to the organization of the California State Medical Society in March of 1856. Together they issued the call for the organization meeting which was held in Pioneer Hall, Sacramento. There were about one hundred present at this meeting, double the attendance at the organization meeting of the American Medical Association a short time before.

Dr. B. F. Keene of El Dorado County was elected president; Dr. E. S. Cooper of San Francisco, vice-president; and Dr. Thomas M. Logan of Sacramento, corresponding secretary. A large number of committees were appointed and a definite program of work was outlined. All men who called themselves doctors of medicine, regardless of qualifications, were admitted to the society. This was necessary in order to bring the organization into existence. There were three parties, or cliques, each of which developed considerable strength during the two years that followed the organization of the society. One of these was composed of the earlier residents of California, "old established practitioners," who were willing to have medical discussions provided only certain men were allowed to participate. Another group, small in number, was composed of old as well as recent arrivals, men who were anxious to see justice done to all; and who had no animosities to settle and who were strongly bent upon making the society one for real medical improvement. The third group, composed mostly of newcomers, were ready to make concessions for maintaining harmony. There was violent conflict between the first and the third groups. The first group had long been accustomed to habits of idleness, avidness and ease; and its members were more fond of amusement than study and could not brook the idea of being compelled to go to work in earnest for the advancement of medicine on this coast, nor could they bear the thought of losing their claims of prestige through the organized system, study and activity of others. These conditions led to open warfare and violent meetings. As a result, the activities of the State Medical Society ceased in 1860, and for ten years there was really no society in existence, although a paper organization was carried on for four or five years. Doctor Cooper died in 1862 at the age of forty-six.

In 1863 Doctor Logan was appointed by the American Medical Association, at its annual meeting, as chairman of a special committee on the medical topography of the Pacific Coast. This provided him with authorization for carrying on his public health activities. He sent questionnaires concerning communicable diseases to medical men throughout the state, continued his weather observations, wrote extensively for medical journals, and spent a large part of his time in the study of communicable diseases in California.

In 1865 one of the medical journals commented: "There is not a medical society in California nor, as far as we know, anywhere in the three states of the Pacific. It makes our ears tingle to record the shameful fact. Not even in San Francisco, where there are two hundred regularly educated physicians, is there an association of medical men."

In 1867 Doctor Logan went to Paris to attend the Medical Congress, and from that city he wrote as

follows: "So little does the great world value our devotion to the cause of that science which especially concerns itself with life and health! Without these, of what value are all the honors and glorifications of this vain world?" This statement seems to epitomize Doctor Logan's point of view, for in 1868 and 1869 his activities along public health lines increased greatly. During those years he wrote extensively upon smallpox, "mushroom poisoning," "fevers," and other subjects which have direct bearing upon the health of the general public. His prestige among members of the profession was growing, and his steadfast hold to the truth in medicine made him an outstanding figure among his colleagues.

#### ORGANIZATION OF CALIFORNIA STATE BOARD OF HEALTH

Meanwhile the idea of organized state boards of health had been launched on the Atlantic seaboard. Massachusetts was the first to establish the idea in concrete form by means of legislative enactment for the organization of a state board of health in the fall of 1869. Logan, in constant touch with medical affairs in the eastern states, became enthusiastic over the action taken in Massachusetts. He saw an opportunity for bringing about the realization of his dreams of twenty years. Almost single-handed he put through the legislation which brought into being the California State Board of Health, and in April of 1870 that board began its functions, which have been carried on continuously ever since. Doctor Logan became the first secretary of the board, which office he occupied until his death in 1876.

#### REORGANIZATION OF CALIFORNIA STATE MEDICAL SOCIETY

He was now in a position to act as leader of the medical profession in California, and he gathered together the broken strands in the organization of the State Medical Society. He issued a call for a reorganization meeting, which was held October 19, 1870, and at that meeting he was elected president of the society. In his address, made at that time, he referred to the lamentable Cooper and to the important part that Doctor Cooper had played in medical affairs in the pioneer days of California. The keynote of his address was in the statement: "We hear of triumphs over death and the grave with as much enthusiasm as the great world now reads of victories on the battlefield."

Organized public health had been established in California coincidentally with the reorganization of the medical profession, both of which were destined to operate continuously thereafter. Doctor Logan occupied the focal point in both organizations. He worked prodigiously in the advancement of the profession, and heavy demands were made upon his time for addressing societies and public meetings.

#### OTHER POSITIONS OF RESPONSIBILITY

He was appointed professor of hygiene in the University of California, and in 1873 was elected president of the American Medical Association.

The reports issued by Doctor Logan during the six years that he was secretary of the California State Board of Health are, in many respects, as high grade as any public health reports that are issued today. It must be remembered that they were written a decade before the period of bacteriology began. They reveal the scientific spirit of the man, his unselfishness, his energy and his desire to make himself of service to the people of his state.

He died of pneumonia, which followed a period of overwork in efforts to strengthen the public health laws of that time.

#### TRIBUTE BY DOCTOR HATCH

Upon his death, Dr. F. W. Hatch, his successor as secretary of the California State Board of Health, gave the following appreciation of Doctor Logan's place in medicine in California: "Nor have we forgotten the conservative spirit which he displayed in

the consideration of questions of a purely medical nature, occasionally arising in his intercourse with the members of the profession in the consultation room. It has been said that Doctor Logan was skeptical of medicine and its availability in the treatment of disease. Such was not the fact. Educated many years ago, during the era when heroic medication was in the zenith of its popularity, his later attendance, while still a young man, in the Parisian schools prepared him for the ready reception of that important system or method whose doctrines molded his subsequent life and which were so prominently conspicuous in his treatment of ordinary diseases. In his judgment, matured by his long experience, nature was to be aided rather than coerced, sustained rather than subdued, and if in the reactions that followed he erred at all, it was always on the side of nature and in defense of a sound conservatism. Yet no one who knew him will deny that on those critical occasions when promptitude of action was called for, when life itself rested upon the adoption of a bold and decisive interference, none was more quick to discover, nor more heroic in his treatment than Doctor Logan. The last few years of his life, as we all know, were devoted mainly to the study of hygiene and sanitary laws. The California State Board of Health was, in fact, the offspring of his zeal and energy in this direction—the conception of his own mind, designed to disseminate useful information among the people of the state, to gather facts regarding the climate of California and its relation to disease."

#### DOCTOR LOGAN'S PERSONAL AND PROFESSIONAL ATTRIBUTES

Doctor Logan's career was nothing short of remarkable. Isolated from the leaders in medical education and scientific societies in eastern states, completely separated by desert and mountain ranges, and from those advantages of civilization for which he had the deepest regard he was able nevertheless to maintain his individual scientific point of view. For several years in the early fifties, because of slow transportation, many long weary months were necessary in awaiting replies to important communications. The establishment of the Pony Express facilitated the exchange of letters with his eastern colleagues, and the building of the transcontinental railroad in 1869 ended the long isolation from which he had suffered. In the midst of the avariciousness and cupidity rampant in the days of gold he labored only for the advancement of medicine and of the public health. In those days, when educated professional men were leaving their work to gather in the precious gold, Doctor Logan remained steadfast to the ideals that were his. Everything that had to do with his profession and its influence was sacred to him. All of his intellectual attainments were given to the advance of his profession, and never did he deviate from the path of duty that lay before him. His attitude toward medicine and public health is well summarized in the following remarks made by him at the organization meeting of the California State Medical Society, March 13, 1856: "The position occupied by us as citizens of California is, by the teaching of all history, that to which the geographical march of civilization is destined to advance, with the light of truth, to the conquest of the whole earth; and whereas, the science of medicine is vitally connected with the great evangelizing social work of the diffusion of knowledge, we owe it to ourselves, to the world and prosperity, by a wise activity—the first condition of all progress—to resort to every available means which may inure to the glorious results whereto all civilized society aspires; and, although our profession as well described by one of its illustrious advocates 'is a restless profession, whose history is a constant innovation and continual discovery, its pride that it cannot stand still as the world advances in science,' so that it is impossible that the facts and discoveries in medicine can be fully appreciated, except by those who devote their whole time to its laborious study, still it is probable that by

extended facilities of information and educational improvement sufficient data for correct judgment upon the most important subject that can engage the attention of man—his life and health—may be made familiar to the public mind."

State Building.

**How to Prevent Tastes in Chlorinated Waters**—Serious problems have arisen in some localities in the state due to unpleasant tastes developing in public water supplies after chlorination. Such tastes may be avoided or remedied in most cases if the cause is determined.

Tastes in chlorinated water may be subdivided into three groups: First, the taste of chlorin itself may be present in the water. This is due to the fact that the dose of chlorin is larger than necessary or that it has to be maintained unusually high because of the absence of, or ineffective, filtration. The remedy in such cases is the proper control of the chlorin dose or the construction of water purification or filtration plants. The second group of tastes are due to the reaction of chlorin with organic matter, introduced by the decay of vegetation and microscopic organisms in reservoirs or by the discharge of certain organic wastes into streams and lakes used as sources of water supply. The remedy in this case is the prevention of growths of excessive numbers of micro-organisms in reservoirs by the suitable use of copper sulphate and the prevention of stream pollution by organic wastes.

Taste-producing reaction products between organic matter and chlorin frequently may be destroyed by increasing the chlorin dose which transforms the organic matter into tasteless products. In such cases an actual increase in the chlorin dose will lead to improvement in the taste of the water, which is contrary to what is usually accepted to be the case.

The third group of tastes are of great importance in sections of the country where by-product coke ovens are located. These tastes are due to the reaction of chlorin and phenolic wastes which are discharged in considerable quantities from coke plants and certain other chemical factories. When phenol reacts with chlorin, very obnoxious tastes are produced even in small concentrations. The remedy for these tastes consists of two independent procedures: The first is based on prevention, the second on destruction. In the first, the discharge of phenolic wastes into surface waters is prevented by the use of phenol recovery plants, by the treatment of such wastes in municipal sewage disposal plants, or by the quenching of coke with the wastes containing phenol; the second consists in destroying or modifying the taste-producing substances by special methods of treatment of the water supply. Three methods are available in accomplishing the result: (a) "superchlorination," which consists of the use of relatively large doses of chlorin. This leads to the destruction of the phenolic wastes. Then after a suitable reaction period, the excess chlorin is removed by the addition of sulphur dioxide gas, for otherwise chlorin tastes would be produced. (b) The destruction of phenolic wastes which may be present in the raw water by the use of potassium permanganate. (c) The third procedure is to add ammonia in small quantities to the water just previous to the addition of the chlorin dose. This results in the formation of a stable disinfectant known as "Chloramin," which does not react with the phenolic compounds to form taste-producing substances.

The prevention of tastes in water supplies is frequently a complicated problem and the solution depends upon the consideration of many local factors. The Division of Sanitation is prepared to assist local authorities in the study of these problems.—*Health News.*

# STATE MEDICAL ASSOCIATIONS

## CALIFORNIA MEDICAL ASSOCIATION

PERCY T. PHILLIPS ..... President  
 WILLIAM H. KIGER ..... President-Elect  
 T. HENSHAW KELLY ..... Vice-President  
 EMMA W. POPE ..... Secretary-Editor

### OFFICIAL NOTICES

**Administration of Anesthesia**—The attention of the members of the California Medical Association is called to a resolution passed by the Board of Medical Examiners regarding the administration of anesthetics by persons unlicensed to practice medicine, which resolution, with accompanying letter, is published in this issue under "Readers' Forum" on page 546.

Official publication of said resolution constitutes notice to physicians and surgeons according to the resolution.

**Southern Pacific Schedule**—The Southern Pacific Company has furnished the following train schedule for the annual meeting at Sacramento:

#### SACRAMENTO TO LOS ANGELES

##### Train No. 31-52

Leave Sacramento .....	9:00 a. m.
Arrive Lathrop .....	11:24 a. m.
Leave Lathrop (No. 52) .....	11:31 a. m.
Arrive Bakersfield .....	5:02 p. m.
Arrive Los Angeles .....	11:15 p. m.

##### \*\*Train No. 61-60

Leave Sacramento .....	5:30 p. m.
Arrive Bakersfield .....	1:45 a. m.
Arrive Los Angeles .....	8:30 a. m.

Note: Trains marked \*\* are through trains; on all other trains it is necessary to change cars at Lathrop.

#### LOS ANGELES TO SACRAMENTO

##### Train No. 51-38

Leave Los Angeles .....	7:50 a. m.
Leave Bakersfield .....	1:38 p. m.
Arrive Lathrop .....	7:08 p. m.
Leave Lathrop (No. 38) .....	7:15 p. m.
Arrive Sacramento .....	9:25 p. m.

##### Train No. 57-210

Leave Los Angeles .....	12:10 p. m.
Leave Bakersfield .....	6:43 p. m.
Arrive Lathrop .....	4:05 a. m.
Leave Lathrop (No. 210) .....	4:42 a. m.
Arrive Sacramento .....	7:00 a. m.

##### \*\*Train No. 59-62

Leave Los Angeles .....	6:10 p. m.
Leave Bakersfield .....	12:37 a. m.
Arrive Sacramento .....	9:00 a. m.

Note: Trains marked \*\* are through trains; on all other trains it is necessary to change cars at Lathrop.

**Sacramento River Boats**—The "Delta King" and "Delta Queen" are new de luxe steel steamers with ninety-eight staterooms and twenty-eight suites each equipped with private tub or showers. These boats accommodate forty automobiles. They leave San

Francisco at 6:30 p. m. daily except Sunday; arrive in Sacramento at 5:30 a. m. the following day. Passenger transportation, \$1.80 one way; \$3 round trip. Automobile transportation each way, \$7.50.

**Los Angeles Steamship Company**—Northbound—SS. Yale and SS. Harvard leave San Diego, 9 a. m. and Wilmington (Los Angeles harbor), 4 p. m. Tuesday, Thursday, Friday and Sunday. Arrive San Francisco, 10 a. m. the following morning.

Southbound—SS. Yale and SS. Harvard leave San Francisco, 4 p. m. every Tuesday, Thursday, Friday and Saturday, arriving at Los Angeles harbor (Wilmington) the following day at 10 a. m. Leaves Wilmington at 3 p. m. and arrives at San Diego at 8 p. m.

**Reservations**—Reservations for Hotel Senator were filled early in March. Hotel Sacramento, Hotel Land, and other Sacramento hotels had available reservations when this issue went to press.

#### Hotel Sacramento rates:

Single room with bath or shower, \$3 and 4.  
 Double room with bath or shower, \$4 to \$6.

#### Hotel Land rates:

Single room without bath \$2.  
 Double room without bath, \$3.  
 Single room with bath, \$2.50 and \$3.50.  
 Double room with bath, \$4 to \$6.

## COMPONENT COUNTY SOCIETIES

### ALAMEDA COUNTY

The regular meeting of the Alameda County Medical Association was held February 20 at the Ethel Moore Memorial Building, with President J. L. Lohse in the chair.

The regular program of the evening was preceded by the report of a case of unilateral chorea by Dr. A. A. Bird.

The scientific treat which followed was prepared by Dr. R. T. Legge and consisted of papers by members of the faculty of the University of California.

Professor Kofoed spoke first on "Some Recent Researches in Parasitology," discussing experiments now being carried on under his direction in the study of entameba dysenteriae, and particularly the experiments which deal with the cultural characteristics of these parasites. They have for the past forty-two months carried forward cultures of a single strain of entameba dysenteriae making daily transplants. In order that a successful growth result it is necessary to carry over at least twenty-five hundred protozoa as counted in a hemocytometer. Their researches show that ameba divide about six times in twenty-four hours, giving a rate of division much in excess of that formerly believed to be the case. The doctor discussed a substance produced by the ameba in the media which acted as an accelerant to their growth. This substance when carried over to fresh media enables the organisms transplanted to grow with greater rapidity and vitality than on media which is free from these excretions of the organisms. The nature of this substance is unknown, but it is a practicable point in the explanation of flare-ups which occur so commonly



in this infection. The overfed parasite which is discharged in the pus from amebic lesions is moribund. This organism contains red blood cells, but within the blood vessel the parasite does not feed on red cells but on serum proteins. Cyst-like forms have been found in the deeper tissues suggesting the possibility that in poor surroundings the parasites may encyst in order to resist deleterious forces.

In the study of the effect of radium upon these organisms it is found that exposure to large doses had little or no effect unless the ameba are suspended in dilute solutions of salts of the heavy metals as, for instance, lead or uranium. Smaller doses and shorter exposure kill the organisms so suspended. Amebae resist freezing, but are very sensitive to changes in Ph value. In their metabolism they require every salt found in the human body.

Second on the program was a talk by Dr. I. MacLaren Thompson on "Some Recent Advances in Anatomy." He discussed recent researches in the relations between the spleen and red blood cell and hemoglobin. Pointing out that the spleen is a reservoir for blood, particularly for red blood cells and hemoglobin, both of which substances are concentrated in this organ. The accumulation of blood in the spleen has been shown to be in part due to contraction of the musculature of the splenic vein which so varies its lumen as to cause damming back of blood. The suggestion has been made that some of the splenomegalia may be due to alterations of this kind. The mechanism of the concentration of blood is not well understood. The greater portion of the time allotted to Doctor Thompson was utilized in the discussion of researches on the semicircular canals describing in detail their functions and recent researches thereon.

Professor C. L. A. Schmidt spoke on the subject of "Some New Aspects in Biochemistry," discussing the uses of calcium in the body and certain experiments carried out to determine what portion of the calcium of the blood is carried in organic combination.

The annual banquet of the Association was held on March 1 at the Hotel Oakland at which time the principal speakers were Paul Cadman, professor of economics at the University of California, and Dr. H. N. Rowell.

GERTRUDE MOORE, *Secretary.*

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#### CONTRA COSTA COUNTY

The regular monthly meeting of the Contra Costa County Medical Society was held at the nurses' home of the County Hospital at Martinez at 8:15 p. m., March 10.

As is the custom of this society for the year 1928, subjects are presented by east and west sections of the county on alternate months and discussed by the members. The subject for the current month in the eastern part of the county was Rheumatism and Arthritis. Dr. John Beard opened the meeting, and a lively discussion was carried on by all members of the society. We learned much from one another.

Application for membership was received from H. D. Neufeld. The nurses of the hospital prepared for us a most delightful after-meeting lunch, which all the attendant members fully appreciated. The following members and visitors were present: F. L. Horne, C. R. Leech, E. Merrithew, Rosa A. Powell, Marguerite Keser, H. D. Neufeld, John Beard, H. L. Carpenter, Dr. I. A. Church, county health officer; Miss Agnes Driscoll, R. N.; Mrs. Elizabeth Redmond, R. N.; Doctor Buckmann, G. W. Sweetser.

L. ST. JOHN HELY.

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#### FRESNO COUNTY

At a meeting of the Fresno County Medical Society, held at the Fresno Hotel on March 6, interesting lectures were given by Dr. Dudley Smith and Dr. A. R. Kilgore of San Francisco.

Doctor Smith discussed practical points with regard to rectal examinations and stressed the importance of using the proctoscope in all cases presenting symptoms suggestive of disease of the rectum or colon. He

described in detail the technique of his abdominoperineal operation for cancer of the rectum.

Doctor Kilgore gave a comprehensive review of present-day cancer research. He considers that cancer is not caused by bacteria, but that cells, for some unknown reason, break away from control just as occasionally they do in the early life of the fertilized ovum, to give rise to teratomata. Doctor Kilgore thinks that until we know more about the normal control of cells we shall not discover the cause of cancer. It is important to eradicate from the public mind the idea that cancer is caused by germs, and that there is a likelihood of a serum being developed that will cure cancer.

An interesting discussion followed by Dr. W. T. Barr, Dr. W. G. Milholland, Dr. F. R. Ruff, and Dr. J. H. Pettis.

JOHN M. FRAWLEY, *Assistant Secretary.*

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#### LOS ANGELES COUNTY

The Los Angeles Obstetrical Society held a joint meeting with the Los Angeles County Medical Association on February 15, considering the analysis of 745 records of cesarean sections done in nine leading hospitals in a five-year period ending December 31 last. The hospital incidence ranged from one in 14.5 to one in 122.5. During the same period the Los Angeles General Hospital had six thousand deliveries, a large proportion being selected pathological material, with 171 cesareans, an incidence of one in thirty-five.

Dr. W. B. Thompson presented the series of 625 classical sections, emphasizing that 306 were upon patients with normal pelvis, 116 had had previous sections, and of these, seventy-eight had normal pelvis. One hundred and sixty patients were sterilized, of whom sixty-one were multiparae undergoing their first section. The mortality, twenty-seven, was highly creditable, but included ten deaths from sepsis; of the latter, six had been in labor 18 to 120 hours. Dr. John Vruwink reviewed 120 low cervical sections of which only five were elective sections based on disproportion. Seventy-six patients had been in labor for an average of twenty-six hours and ranged up to 104 hours. There were no deaths from sepsis.

Dr. E. J. Krahulik considered nine ruptured cesarean scars, all following classical section; three were not in labor, and three died. He outlined the procedure necessary if one elected to allow a scar to attempt the strain of labor. Dr. H. S. Fist demonstrated a new obstetrical manikin, capable of being manipulated during examinations by the student on the female manikin. This is the first improvement in fetal manikins since 1890.

WILLIAM BENBOW THOMPSON,  
*Secretary Obstetrical Section.*

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#### ORANGE COUNTY

At a meeting of the Orange County Medical Association Tuesday evening, March 6, at the Orange County General Hospital, there was a large attendance of doctors, nurses, and public health workers.

The occasion was a meeting in line with the campaign of the National Tuberculosis Association to emphasize the need for early diagnosis of tuberculosis.

Dr. E. W. Hayes of Monrovia was the speaker of the evening and stated that every person with that "tired feeling," poor appetite, loss of weight, slight cough, pain in the chest, or so-called "run-down condition," should be suspected of having tuberculosis.

"Early diagnosis by complete physical examination, x-rays of chest and examination of the sputum followed by proper treatment gives the person with tuberculosis a very hopeful outlook for early recovery," he said.

Motion pictures entitled "The Doctor Decides" gave a good story of a "tired business man" who found he had tuberculosis, faced that fact and with proper treatment made prompt recovery.

Clinics and chest examinations are to be held in the high schools of Orange County under the auspices of the State Tuberculosis Association. High school stu-



dents who are in a "run down" or underweight condition will be able to take advantage of examination by a specialist in pulmonary tuberculosis.

F. HAROLD GODAR, *Secretary*.

#### SAN BERNARDINO COUNTY

Minutes of the meeting of the San Bernardino County Medical Society, held at the San Antonio Community Hospital in Upland, March 6.

The meeting was called to order by the president at 8:15. Minutes of the previous meeting read and approved. The president announced that owing to the length of the program the business section would be put over until the next meeting. The appended symposium on Surgical Handicap Due to Delay was discussed under the following headings: Traumatism and Infections—Sidney R. Burnap, M.D. Malignancies—Charles S. James, M.D. The Importance of Urologic Study—A. A. Kutzmann, M.D. Surgery from the Internist's Viewpoint—Dudley Fulton, M.D. Surgery in Retrospect—A. H. Zeller, M.D.

Discussions were opened by Frank J. Breslin, M.D., C. G. Toland, M.D., Walter Wessels, M.D., and A. J. Scholl, M.D., of Los Angeles, and P. M. Savage, M.D., first paper; F. F. Abbott, M.D., second; E. J. Eyttinge, M.D., third; G. G. Moseley, M.D., fourth; and C. G. Hilliard, M.D., fifth.

The discussion was free and gratifying.

Doctors Breslin and Scholl were not able to be present, but Doctor Percy gave a special discussion of Doctor James' paper. Otherwise the program was given as arranged.

Following the conclusion of the program a motion was passed, directing the secretary to send an individual letter of thanks to each member contributing to the program.

Luncheon served at 10:30. Meeting adjourned.

E. J. EYTINGE, *Secretary*.

#### SAN DIEGO COUNTY

Dr. John Lichty, superintendent of the Clifton Springs Sanitarium, Clifton Springs, New York, spent a few days in San Diego during February. Doctor Lichty is one of the regents of the American College of Physicians and was interested in meeting the local men of the college as well as others doing internal medicine.

The February dinner of the medical society was held at the charming home of the Thursday Club on Sunset Cliffs, where the young ladies of the club served an excellent dinner, after which the society listened to an illustrated talk on Classification and Treatment of Heart Diseases by Dr. William J. Kerr of San Francisco. The doctor, who is well known by the San Diego profession as a teacher and research worker at the university, handled his subject with a clarity of style and comprehensive grasp of the subject very pleasing to his audience.

The February staff meeting of the Scripps Memorial Hospital featured case reports by Dr. Hall G. Holder and Dr. Clyde J. Osborne. They also presented a pathologic specimen of an ovarian cyst of an unusually large size for these days.

At the monthly staff meeting of Mercy Hospital, February 21, Dr. Hall G. Holder read an excellent paper on "Spinal Anesthesia, with Special Reference to the Use of Ephedrin." Discussion by Doctors Oatman, St. Sure, Hoover, and Higbee. Dr. Otto Weiskotten gave a paper on "Unusual and Interesting Cases," illustrated by lantern slides of rare and startling radiography. This paper was discussed in general by the staff, and while nothing in this notice proclaims a comedy, it is due the essayist that his reporter state that the presentation and discussion carried with them so much merriment that the rafters trembled.

The Academy of Medicine presented for three nights during March Dr. Julius Bauer of Vienna, an internist of world renown. A more detailed report of this course will be given later.

ROBERT POLLOCK.

#### SAN FRANCISCO COUNTY

A dinner, aptly described by Dr. Reginald Knight Smith, toastmaster, as "unique, original and without precedent," was given in honor of Dr. Walter B. Coffey, Saturday evening, March 3, at the Palace Hotel, San Francisco. Some four hundred leading doctors came from all sections of California to express their friendship and appreciation for the great services which Doctor Coffey has rendered. At the speakers' table alone there were representative members of the medical profession from twenty-five different counties.

Doctor Coffey was the chief speaker, and he delivered an address that will long be remembered. Out of the abundance of his wide experience he reviewed many of the problems confronting our profession in this state and gave some practical suggestions as to how they ought to be met. He discussed the socialization of medicine, various cult problems, the proper attitude of older doctors to their younger colleagues, the private practice of medicine by tax-supported institutions, ways in which universities and practicing physicians can advance one another's interests, and the value and need for constructive publicity. As other speakers did, Doctor Coffey paid high compliment to *Better Health* magazine and to the "Better Health Service" which has been successfully conducted and edited by the League for the Conservation of Public Health for many years.

Among the speakers who were called upon by the chairman, Dr. Reginald Knight Smith, to address the distinguished gathering were Doctors Ray Lyman Wilbur, Langley Porter, James W. Ward, O. D. Hamlin, Edward T. Dillon, P. T. Phillips, Ernest A. Bryant, Mariana Bertola, and Messrs. Hartley F. Peart and Celestine J. Sullivan.

The guest of honor and all the other speakers emphasized the chief need of today which Doctor Coffey expressed as "unity and useful cooperation for the benefit of the people and profession of every county of California."

T. HENSHAW KELLY, *Secretary*.

#### SAN JOAQUIN COUNTY

The stated meeting of the San Joaquin County Medical Society was held March 1 in the hall of the Medico-Dental Club, 242 North Sutter Street. Dr. John J. Sippy, president, in the chair.

The meeting was called to order at 8:30 p. m., with an attendance of twenty-eight. Those present were: Drs. E. A. Arthur, N. P. Barbour, J. W. Barnes, Winifred Biethan, E. L. Blackmun, J. F. Blinn, H. J. Bolinger, C. A. Broadus, Fred J. Conzelmann, J. F. Doughty, Linwood Dozier, C. F. English, P. B. Gallegos, L. M. Haight, L. R. Johnson, H. E. Kaplan, Grace McCoskey, W. T. McNeil, F. S. Marnell, J. E. Nelson, D. R. Powell, G. H. Sanderson, J. J. Sippy, J. A. Smither, Margaret H. Smyth, C. V. Thompson, G. J. Vischi, and James Eaves of San Francisco, guest and speaker of the evening.

The minutes of the previous meeting were read and approved. The chairman of the Constitution committee, Dr. H. E. Kaplan, read a temporary draft of the amendment to the Constitution and asked for an extension of time, which was granted.

The president, Dr. John J. Sippy, gave a brief report of his five years' work as health officer of the San Joaquin health district. He remarked that: "Public health is purchasable and has been well exemplified in this community. Not only have we seen declines in specific death rates from all acute communicable diseases, but reductions in infant and maternal mortality and in our general death rate have been most satisfactory. While gross expenditures of the department show increases these have not kept pace with the growth of population, and per capita costs have decreased from 91.3 cents in 1923 to 88.3 cents for the present fiscal year. In addition the special tax for department support has been reduced from ten to nine cents on each \$100 assessed valuation. Public health expenditure in 1920 under the part-time system was 88.7 cents per capita. Centralized effort

not only pays in results, but is actually more economical in administration. We thank you all and only ask the same continued and gratifying cooperation of practitioners as we have had in the past."

The chairman then introduced Dr. James Eaves of San Francisco who spoke on "Problems Peculiar to Industrial Medicine."

Doctors Sanderson, Powell, Dozier and Johnson discussed the talk and many questions were asked which Doctor Eaves answered in an instructive and practical way.

The Chair tendered the speaker the thanks and appreciation of the society for a pleasant and instructive evening.

There being no further business the Chair declared the meeting adjourned at 10:30 p. m.

FRED J. CONZELMANN, *Secretary*.

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#### VENTURA COUNTY

The regular monthly meeting of the Ventura County Medical Society was held at the offices of the Ventura medical group on January 10. Dr. H. O. Bames of Los Angeles read a paper on "Scarless Surgery," illustrated with lantern slides. The following officers were elected for the ensuing year: L. W. Achenbach, president; D. G. Clark, secretary-treasurer; delegate, J. Bianchi; alternate, F. E. Blaisdell, Jr.

A special meeting was held at Pierpont Inn on January 31 to discuss county hospital problems. Fifteen members and Doctor Duffield, our counselor, were present. A committee consisting of J. Bianchi, F. E. Blaisdell Jr., and W. R. Livingston reported on their investigation of conditions existing at the hospital and presented their recommendations. The recommendations were endorsed by the society and the secretary instructed to forward a copy to the board of supervisors before their next meeting. The society also expressed their approval and extended a vote of confidence to Doctor Homer for his efficient work as county physician in the past.

J. E. Whitlow presented his resignation from the society which was accepted.

D. G. CLARK, *Secretary*.

#### CHANGES IN MEMBERSHIP

##### New Members

Alameda County—John Nevison Force, Berkeley; William O. French Jr., Clifford V. Mason, Edith M. Meyers, Oakland.

Fresno County—Warden T. Barr, Michael Hagoian, Hjalmer A. Jacobson, Frank R. Ruff, Fresno.

Humboldt County—George B. Brown, Eureka.

Imperial County—Orley H. Van Eman, Calexico.

Los Angeles County—Philip E. Ayer, Hollywood; Homer M. Barron, Douglas L. Gamette, Samuel L. Perzik, Fred A. Polesky, Harry A. White, Lawrence F. White Los Angeles; Montrose R. Burrows, Pasadena; Ephraim G. Hughes, Raymond W. Kelso, Long Beach; Roger S. Palmer, Pomona; George P. Shidler, Torrance.

Marin County—L. L. Robinson, Larkspur.

Merced County—Percival L. Rookledge, Livingston.

Monterey County—Hubbard Spencer Hoyt, John A. Merrill, Monterey.

Orange County—Charles Glenn Curtis, Brea; S. Theron Johnston, G. Emmett Raitt, Santa Ana; Lyndon E. Taylor, Orange.

Riverside County—Howell E. Babcock, Hervey S. Faris, Reynolds D. Smith, Riverside; Joseph C. Friedman, Banning; Donald D. Roos, Corona.

San Diego County—Ronald O. Logsdon, Thomas S. Whitelock, San Diego.

San Francisco County—Archibald E. Amsbaugh, Charles E. H. Bates, John Joseph Carroll, Claude E. Emery, Kristbjorn S. Eymundson, William B. Faulkner Jr., William Fritschen, Stacy R. Mettler, William W. Newman, Evelyn Raynolds Ott, James F. Rinehart, Ralph Soto-Hall, William L. Thomson, San Francisco.

San Mateo County—John M. Cruikshank, San Mateo; J. M. Huston, Burlingame.

Santa Barbara County—Charles G. Baird, Santa Maria.

Santa Clara County—Harry J. Arnold, Milpitas; Ajika Amano, Helen Bruckman, Leland A. Childers, Charles A. Fernish, Henry M. Gay, C. A. Sullivan, San Jose; William Horace G. Jones, Los Gatos; Walter I. Merrill, Campbell; Frederick Proescher, Agnew; Thomas A. Storey, Palo Alto.

Solano—John Edward Hughes, H. Walbridge Hyatt, Vallejo.

Sonoma County—Lyde H. Bernard, Pearl V. Kontas, Thomas Hubert Reiss, Santa Rosa; Murdoch Alfred Craig, Lakeport; Earl Lane Lupton, Chester Marsh, Sebastopol; Ira A. Wheeler, Cloverdale.

Tehama County—J. L. Faulkner, Red Bluff.

Tulare County—Donald Fowler, Exeter; Henry A. Rivin, Delano.

Yuba-Sutter Counties—R. R. Craft, Marysville.

##### Transferred Members

Bard S. Berry, from San Francisco to Santa Barbara County.

D. Grant Clark, from Santa Barbara to Ventura County.

Esther B. Clark, from San Francisco to Santa Clara County.

Lambert B. Coblenz, from Santa Barbara to San Francisco County.

N. J. Crisp, from Sonoma to Solano County.

Robert E. Hughes, from Stanislaus to Merced County.

Benjamin H. Pratt, from Tulare to Fresno County.

John H. Regan, from Los Angeles to Orange County.

I. S. Ritchie, from San Bernardino to Imperial County.

P. K. Telford, from Tuolumne to Merced County.

##### Resignations

Robert M. Culler, Santa Barbara.

Zoe M. Ruth, Los Angeles.

James R. Scott, Berkeley.

William R. Varick, Santa Barbara.

##### Deaths

**Goodale, George W.** Died at San Francisco, February 26, 1928. Graduate College of Physicians and Surgeons, California, 1900. Licensed in California, 1901. Doctor Goodale was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

**Hanna, William J.** Died at Mare Island, January 24, 1928, age 63 years. Graduate Cooper Medical College, California, 1889. Licensed in California, 1890. Doctor Hanna was a member of the Sacramento County Medical Society, the California Medical Association, and the American Medical Association.

**Merritt, George W.** Died at San Francisco, March 8, 1928, age 72 years. Graduate Medical Department University of California, 1882. Licensed in California, 1887. Doctor Merritt was a member of the San Francisco County Medical Society, the California Medical Association, and the American Medical Association.

**Moore, Melvin L.** Died at Los Angeles, February 25, 1928, age 69 years. Graduate Rush Medical College, Illinois, 1880; Bellevue Hospital Medical College, New York, 1882. Licensed in California, 1888. Doctor Moore was an honorary member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

#### COUNCIL MINUTES

##### Minutes of the One Hundred and Seventy-First Meeting of the Council of the California Medical Association

##### Approved at the One Hundred and Seventy-Second Meeting of the Council

Held in room 242 of the Biltmore Hotel, Los Angeles, California, Saturday, October 8, 1927, at 10:30 a. m.

**Present**—Doctors Phillips, Kiger, Kelly, Gibbons, Hamlin, Kinney, Duffield, Bingaman, DeLappe, Shep-

hard, Coffey, Harris, Catton, Kress, Curtiss, Pope, and General Counsel Peart.

**Absent**—Doctors Peers and Rogers.

1. **Call to Order**—The meeting was called to order by the chairman, Morton R. Gibbons.

2. **Minutes of the Council**—On motion of Phillips, seconded by Kelly, it was

Resolved, That the minutes of the 167th, 168th, 169th, and 170th meetings of the Council, as mailed to each member thereof, be approved.

3. **Minutes of the Executive Committee**—On motion of Phillips, seconded by Bingaman, it was

Resolved, That the minutes of the 99th, 100th, and 101st meetings of the Executive Committee, as mailed to each councilor, be approved.

4. **Date of Annual Meeting**—The secretary advised that the Executive Committee had tentatively fixed the date of the annual meeting as April 30 to May 3, 1928, inclusive.

Action by the Council—On motion of DeLappe, seconded by Hamlin, it was

Resolved, That the date of the annual meeting at Sacramento be fixed as April 30 to May 3, 1928, inclusive.

5. **Industrial Medical Survey Committee**—Dr. Gayle Moseley, chairman of the Industrial Medical Survey Committee, addressed the Council on the work of his committee, and presented examples of several different types of industrial and contract practice which were being investigated.

Action by the Council—On motion of Kress, seconded by Duffield, it was

Resolved, That an allowance of \$100 be made the Industrial Medical Survey Committee to be expended on the approval of its chairman.

Doctor Phillips stated that he believed most of this work could be done through the secretary's office, and that Doctor Moseley's request for Association letter-heads giving the names of the committee, etc., should be granted. Doctor Moseley stated that all reports of his committee would be submitted to the Council for approval before distribution elsewhere.

With the consent of the makers of the previous resolution, on motion of Catton, seconded by Kress, it was

Resolved, That stationery giving the membership of the committee, in such form as the general counsel shall suggest, be furnished the Industrial Medical Survey Committee; and that the chairman of the committee be given a petty fund of \$100.

6. **Health Associations**—Correspondence regarding the various health and hospital associations was presented. In discussing the situation in San Joaquin County regarding the ethics of doctors employed by health associations, it was the sense of the Council that this was primarily a county society matter.

Action by the Council—On motion of DeLappe, seconded by Curtiss, it was

Resolved, That the file on health and hospital associations be referred to the Industrial Medical Survey Committee for investigation and report.

7. **Committee on Group Insurance**—Letter from Henry W. Gibbons, member of the committee appointed by the Council to investigate the feasibility of furnishing group insurance to members of the California Medical Association, was read. Dr. Henry W. Gibbons pointed out that the plan was not only legally impossible for such a group as the California Medical Association, but was also impracticable. Dr. Walter B. Coffey then discussed the plan.

Action by the Council—On motion of Phillips, seconded by Kiger, it was

Resolved, That the committee be continued.

8. **Program Committee**—Letter from Dr. Joseph Catton submitting his resignation as a member of the Program Committee, was read.

Action by the Council—On motion of Phillips, seconded by Kiger, it was

Resolved, That the resignation of Dr. Joseph Catton as a member of the Program Committee be accepted.

Discussion was then had as to the appointment of a new member to fill the unexpired term of Doctor Catton.

Action by the Council—On motion of Kelly, seconded by Kiger, it was

Resolved, That Doctor Leo Eloesser be appointed a member of the Program Committee to fill the unexpired term of Doctor Catton.

The question of holding a meeting of the section secretaries and Program Committee similar to that held prior to the 1927 annual session was discussed, and the advantages of such a meeting pointed out.

Action by the Council—On motion of Duffield, seconded by Catton, it was

Resolved, That a meeting of the section officers and Program Committee be held at Santa Barbara prior to the 1928 annual session and that the expenses be handled in the same manner as for the 1927 meeting.

9. **Walter Reed Memorial Committee**—William H. Kiger, chairman of the Committee on the Walter Reed Memorial, presented a report for his committee on the amount of collections and stated that there were several committeemen from whom no report had been received.

Action by the Council—On motion of Harris, seconded by Phillips, it was

Resolved, That the report be accepted and the committee continued.

It was felt that it would be well to publish a notice in the journal regarding the work of the committee.

10. **Medical Practice Act**—Dr. George H. Kress, chairman of the Medical Practice Act Committee, submitted a report for his committee on the desirability of the adoption by California of a basic science law.

Action by the Council—On motion of Harris, seconded by Kiger, it was

Resolved, That the report be accepted and the committee be continued.

11. **Technical Specialties Committee**—The secretary informed the Council that Dr. Edward N. Ewer, chairman of the Technical Specialties Committee, had advised that the present committee was so widespread as to be practically unworkable. The secretary advised that the question of technical specialties was at present in the hands of the Medical Activities Committee. Dr. Lyell Kinney, member of the Medical Activities Committee, stated that he was sure Doctor Graves, chairman of the committee, would be glad to be relieved of the technical specialties problem.

Action by the Council—On motion of Kelly, duly seconded, it was

Resolved, That the committee in its present form be dissolved, but that a similar committee consisting of William B. Bowman, chairman; William Duffield and John H. Graves, be appointed.

12. **Instructing Delegates to the American Medical Association**—Dr. Oliver D. Hamlin advised that the committee had not yet worked out a plan for instructing delegates to the American Medical Association, and requested that the committee be continued.

Action by the Council—On motion of Phillips, seconded by Catton, it was

Resolved, That the committee on instructing delegates to the American Medical Association be continued.

13. **Constitution and By-Laws**—Dr. Joseph Catton suggested that the report of the Special Committee on the Revision of the Constitution and By-Laws be accepted as the final report and that the Council take some definite action at this time on the Constitution so that the next meeting might be devoted to discussion of the by-laws.

Doctor Kress stated that it was the desire of the Special Committee to be allowed to submit a report at the spring meeting which would be in such form as to permit action by the Council. If this additional time were allowed it would permit the committee to work over all drafts and present final suggestions. Doctor Kress then requested on behalf of the committee that it be permitted to submit such a report.

Mr. Peart stated that there were several points upon which he might be able to give assistance if dis-



cussed at this time, such as, membership, proposed election of district councilors by districts, speaker and vice-speaker, etc. Discussion was then had as to classes of members.

Action by the Council—On motion of Phillips, seconded by Kelly, it was

Resolved, That there be three classes of members; that the Special Committee with Mr. Peart's assistance work out these classes in order to present active, affiliate and honorary members.

Doctor Kress then stated that a final composite could be worked out with the assistance of Mr. Peart and the subchairmen of the Committee on Revision and submitted to all councilors before the spring meeting so that at that time definite action could be taken.

Action by the Council—On motion of Phillips, duly seconded, it was

Resolved, That the committee be continued and a report be submitted at the spring meeting of the Council.

Action by the Council—On motion of Catton, duly seconded, it was

Resolved, That the present constitution as drawn up by Doctor Kress' committee, with such corrections as Mr. Peart now has, adequately serves this Association, and that it be put in shape by the general council.

Action by the Council—On motion of Duffield, duly seconded, it was

Resolved, That action on the Constitution be deferred.

A vote on the question was then taken, and deferred action was sustained. Doctors Catton and Shephard voting No.

**14. Annual Conference of Secretaries**—Letter from Doctor Kress regarding the Annual Conference of Secretaries of Constituent State Societies was read.

Action by the Council—On motion of Phillips, seconded by Kelly, it was

Resolved, That the secretary and the editors attend the annual conference of Secretaries of Constituent State Societies at Chicago, November 19 and 20.

**15. Rates for Advertising**—The secretary explained the present situation regarding advertising rates in CALIFORNIA AND WESTERN MEDICINE, and presented a letter from the Cooperative Advertising Bureau of the American Medical Association.

Action by the Council—On motion of Phillips, seconded by Catton, it was

Resolved, That the matter of increasing rates for advertising be left to a committee consisting of Doctors Kress and Pope and Mr. Peart, with power to act.

**16. Exhibits at Annual Meeting**—The secretary advised that she was desirous of having a ruling on the length of time an advertisement must run before carrying the privilege of exhibition at the annual meeting.

Action by the Council—On motion of Phillips, seconded by DeLappe, it was

Resolved, That none but regular advertisers be allowed to exhibit at any annual meeting and that the term "regular advertiser" shall be construed to mean one who has carried an advertisement in CALIFORNIA AND WESTERN MEDICINE for at least three months prior to the annual meeting.

**17. State Board of Medical Examiners and State Board of Health Columns**—Doctor Kress stated that he believed much of the personal data included in the Board of Medical Examiners column in the journal might well be eliminated. Doctor Phillips advised that he was at present editing the news items before publication and that, with the assistance of Doctor Pinkham, he believed the column would contain only news items of general interest. Doctor Phillips then pointed out that the work of the State Board of Health was important and that this board should be granted the same privilege as the Board of Medical Examiners in publishing items in CALIFORNIA AND WESTERN MEDICINE.

It was the sense of the Council that the California State Board of Health be invited to submit news items for inclusion in CALIFORNIA AND WESTERN MEDICINE.

**18. Handling the Insane in California**—Doctor Catton explained the present method of handling insane in California and stated that in his opinion the situation was not urgent.

Action by the Council—On motion of Kress, seconded by DeLappe, it was

Resolved, That the correspondence on handling the insane in California be referred to a committee consisting of Doctors Catton and Shoemaker and Mr. Peart, for study and report to the Executive Committee.

**19. Private Hospital**—Letter from Dr. E. V. Falk regarding a private hospital at Modesto was presented. It was the sense of the Council that the letter be referred to the Stanislaus County Medical Society.

**20. Welfare Committee**—The secretary presented a report from Martha Welpton, chairman of the Welfare Committee. No action taken. Doctor Welpton's request for stationery was then discussed and referred to the Executive Committee.

**21.** A case of alleged negligence on the part of a member was presented and details thereof discussed.

**22. Arrangements Committee**—Dr. Junius B. Harris, chairman of the Arrangements Committee reported on the progress of arrangements for the annual meeting. Doctor Harris stated that housing and entertainment features had been studied and at present they were selecting speakers for the various meetings.

**23. Date of Council Meeting**—Discussion was had on the date of the spring meeting of the Council. It was pointed out that more than one day might be needed for discussion of the Constitution.

Action by the Council—On motion of Kress, seconded by Kinney, it was

Resolved, That the spring meeting of the Council be held at San Francisco on Friday, January 20, 1928.

**24. Twenty-Five Years Ago Today Column**—Dr. George H. Kress presented a column entitled "Twenty-Five Years Ago Today," which he desired to have approved for inclusion in the journal. It was the sense of the Council that the column be approved.

**25. Clarendon Foster**—Doctor Kress stated that Dr. Clarendon Foster had been in touch with him relative to his request for admission to membership in the Association.

Action by the Council—On motion of Phillips, seconded by Harris, it was

Resolved, That the Council refuse to act.

**26. Adjournment**—There being no further business, the meeting adjourned.

#### Minutes of the One Hundred and Seventy-Second Meeting of the Council of the California Medical Association

*Approved at the One Hundred and Seventy-Third Meeting of the Council*

Held in the English Room, Palace Hotel, San Francisco, Friday, January 20, 1928, at 10 a. m.

**Present**—Doctors Phillips, Gibbons, Kiger, Kelly, Hamlin, Kinney, Duffield, Bingaman, Shephard, Harris, Rogers, Peers, Kress, Curtiss, Pope, and General Counsel Peart.

**Absent**—Doctors DeLappe, Coffey, Catton, and Shoemaker.

**Invited**—Doctor McArthur.

**1. Roll Call**—The meeting was called to order by the chairman, Morton R. Gibbons.

**2. Minutes of the Council**—On motion of Phillips, seconded by Kiger, it was

Resolved, That the minutes of the one hundred and seventy-first meeting of the Council as mailed to all councilors, be approved.

**3. Minutes of the Executive Committee**—On motion of Phillips, seconded by Kelly, it was

Resolved, That the minutes of the one hundred and second and one hundred and third meetings of the Executive Committee as mailed to all councilors, be approved.

4. **Committee on Arrangements**—Junius B. Harris, chairman of the Committee on Arrangements, stated that preparations for the annual meeting were progressing nicely. Doctor Harris stated that with the assistance of Doctor Pope section meetings and commercial and scientific exhibit space had been cared for. Although the Arrangements Committee is experiencing some difficulty in obtaining speakers for general sessions at the annual meeting, it was anticipated that definite speakers would be named by the date of the program meeting on January 29. The committee had not yet reached a decision as to the matter of holding clinics at various hospitals.

It was the sense of the Council that the progress report of the Arrangements Committee be accepted.

5. **Industrial Medical Survey Committee**—The secretary stated that Dr. Gayle Moseley, chairman of the Committee on Industrial Medicine, had reported that he had sent out letters requesting information on industrial medical problems and was at present awaiting replies; and that a report would be submitted at the annual meeting.

6. **Medical Activities Committee**—The secretary advised that Dr. John H. Graves, chairman of the Medical Activities Committee, reported progress in his work.

7. **History of the C. M. A.**—Excerpt from a letter from Doctor Kress, member of the Committee on the History of the California Medical Association, was read. Doctor Kress stated that at present data on the history of the Association was very limited. It was felt that it would be well to circularize county societies and older members of the profession to obtain important historical data and in an endeavor to secure the volumes covering transactions during the years 1902 and 1903.

On motion of Phillips, seconded by Duffield, it was Resolved, That the present Committee on the History of the California Medical Association during its existence be empowered to use not to exceed \$100 in the pursuit of the work of the committee.

8. **Clinical Prize Committee**—The report of George Dock, chairman of the Committee on Clinical Prizes, was read. It was the sense of the Council that the report be accepted.

9. **Medical Practice Act**—George H. Kress, chairman of the Committee on the Medical Practice Act, presented the report of his committee, in which detailed information was given on the new Professional Standards Committee and the Basic Science Law, stating that members of the medical profession would be under the jurisdiction of this Professional Standards Committee.

Doctor Kress stated that the committee would submit a further report at the annual meeting so that the Council could decide whether or not this matter should be placed before the House of Delegates.

Action by the Council—On motion of Phillips, seconded by Kelly, it was

Resolved, That the report of the Committee on the Medical Practice Act be accepted.

Doctor Phillips commended the committee on the excellence of the report as submitted.

10. **Investment of C. M. A. Funds**—Doctor Phillips, chairman of the Committee on Investment of Funds of the California Medical Association, stated that at present high-class bonds were paying little in excess of 4¼ per cent, which is being paid by banks for savings accounts, which offer the highest type of security. Doctor Phillips stated that he therefore believed it was inadvisable to withdraw the funds from the savings accounts.

Action by the Council—On motion of Kinney, seconded by Harris, it was

Resolved, That the report of the Committee on Investment of the Funds of the California Medical Association be adopted.

11. **Circulation of California and Western Medicine**—The question of limiting the circulation of CALIFORNIA AND WESTERN MEDICINE was brought up. The general attorney advised that the greatest advantage would

be the limiting of the circulation to ethical physicians and surgeons, and thus giving authors greater latitude in the preparation of papers. The desirability of keeping before the lay public was pointed out.

Action by the Council—On motion of Phillips, seconded by Harris, it was

Resolved, That action on the question of limiting the circulation of CALIFORNIA AND WESTERN MEDICINE to physicians and surgeons only, be deferred.

12. **San Diego County Society**—Telegram from the San Diego County Society as received by the secretary was reported to the Council. No action taken.

13. (See footnote.)

14. **Noon Adjournment**—At this point the meeting adjourned for lunch until 1:15 p. m.

15. **Call to Order**—The meeting was called to order by the chairman, Morton R. Gibbons.

16. (See footnote.)

17. **William T. McArthur**—Action by the Council—On motion of Phillips, seconded by Harris, it was

Resolved, That Dr. William T. McArthur be given the privilege of the floor of the Council.

18. **San Joaquin County Society**—Letters and appeals of Drs. Ernest C. Griner and C. V. Thompson from action of the San Joaquin County Society in suspending them from membership was read. It was the sense of the Council that the chairman appoint a committee of three to act in cooperation with the general attorney to arrange for the hearing of the appeals, and that the secretary write the secretary of the San Joaquin County Society, and obtain copies of all the official records of the society in the matter; that the committee arrange for a time to hear the appeals at one of the Council meetings to be held at the time of the annual meeting at Sacramento, and that Doctors Griner and Thompson and the officers of the society be duly notified of the time and place of hearing.

19. A case of alleged negligence on the part of a member of the profession was presented and details thereof discussed.

20. A case of alleged negligence on the part of a member was presented and details thereof discussed.

21. **Dr. F. E. Morgan**—Letter from Dr. F. E. Morgan regarding office space in the new Four Fifty Sutter Building was presented and referred to the Auditing Committee for report to the Executive Committee.

22. **Cooperative Advertising**—The attention of the Council was called to the fact that some advertisers for renewal contracts considered changing from direct accounts to cooperative accounts and in two instances the secretary felt this was due to solicitation by the Cooperative Advertising Bureau of the American Medical Association.

Action by the Council—On motion duly made and seconded, it was

Resolved, That the Council of the California Medical Association appreciates the very fine work done by the Cooperative Advertising Bureau in securing advertising for the state journals, but believes that the interest of each state journal is best served when advertisers under contract with any state journal are not solicited for further or different advertising in that journal through the national Cooperative Bureau.

23. **Orange County Society**—Letter from Harlan Shoemaker, chairman of the Legislative Committee, attaching resolution of the Orange County Medical Society regarding an infectious eye disease in that county was read.

Action by the Council—On motion of Phillips, seconded by Kelly, it was

Resolved, That the secretary communicate with the State Board of Health presenting such information as is at hand.

24. **Physicians' Income Tax Deductions**—Letter from Doctor MacGowan reporting on the status of the Committee on Lay Medical Corporations and the

Physicians' Income Tax Deductions was read. Doctor MacGowan stated that the action on the Physicians' Income Tax Deductions would probably entail actual appearance at Washington and requested that his resignation from this committee be accepted.

Action by the Council—On motion of Kress, seconded by Hamlin, it was

Resolved, That the resignation of Granville MacGowan be accepted and that the question of physicians' income tax deductions be referred to the Legislative Committee.

25. **Bureau of Child Hygiene**—Letter from Dr. Ellen Stadtmuller regarding survey on the cause of maternal deaths was presented, and discussed by members of the Council.

Action by the Council—On motion of Phillips, seconded by Harris, it was

Resolved, That Dr. Ellen Stadtmuller be invited to attend the next executive meeting and discuss the plans of the Bureau.

26. **Herzstein Bequest**—The general counsel read the excerpt from the will of Dr. Morris Herzstein wherein the California Medical Association is to receive the income from a \$20,000 trust fund for use in the suppression of quackery.

27. **Constitution and By-Laws**—George H. Kress, chairman of the special Committee on Revision of the Constitution and By-Laws, presented galley-proof copy of the Constitution and By-Laws as amended by his committee. General Counsel Peart also presented a mimeograph form of constitution and by-laws as prepared by him embodying suggestions of various councilors and members.

Action by the Council—On motion of Phillips, seconded by Hamlin, it was

Resolved, That the present Committee on Revision of the Constitution and By-Laws be discharged with the thanks of the Council for the great amount of work done in assisting in the revision of the Constitution and By-Laws; that the matter of revision of the Constitution and By-Laws be referred to Doctor Kress and Mr. Peart for report to the Council at a later meeting.

A ten-minute recess was then called to permit Doctor Kress and Mr. Peart to examine the two types of Constitution and By-Laws and make suggestions.

At the suggestion of the Chair, Doctor Kress presented a number of important points which Mr. Peart and he had discussed. It was felt that with the suggestions offered by the Council, Doctor Kress and Mr. Peart could work up a final revision for submission at a later meeting of the Council.

Doctor Kress then reported on the following matters as discussed by Mr. Peart and him:

Doctor Kress stated that Mr. Peart and he were agreed that the final draft of the Constitution and By-Laws should be cross-indexed; that there should be a speaker and vice-speaker of the House of Delegates; that the language governing alternate delegates should be very explicit; that the president-elect should be elected for three years, namely, one year as president-elect, one year as president, and one year as retiring president, during which he shall serve ex-officio as a member of the Council; that the article of incorporation as prepared by Mr. Peart was satisfactory; and that there should be certain standing committees.

Doctor Kress and Mr. Peart did not agree on the question of larger representation for the small counties. They also differed on the question of whether men recently graduated from college should receive the benefit of smaller dues; whether the secretary and editor should be prohibited from engaging in the practice of medicine while in office; whether district councilors should be elected by the entire House of Delegates or by the delegates from the district in which they are to serve, only; and whether the main office

should be fixed in the Constitution at San Francisco.

The Council then discussed the various questions and took the following action:

On motion of Peers, seconded by Hamlin, it was

Resolved, That since both Mr. Peart and Doctor Kress are agreed on the advisability of a speaker and vice-speaker, it be recommended for inclusion in the Constitution and By-Laws.

On motion of Duffield, seconded by Kiger it was

Resolved, That since there is a difference of opinion on the matter of larger representation for the small counties, the Council make no recommendation on this point.

The Council felt that a clause should be added that in the event of a county unit not having a delegate or alternate present at the meeting of the House of Delegates, the House could appoint one; that the president-elect should serve for a term of three years during which time he would be ex-officio a member of the Council and that during the third year he should serve as "retiring president"; and that provisions should be made for a vice-chairman of the Council.

On motion of Kinney, seconded by Harris, it was

Resolved, That the dues of the Association be uniform for all members.

On motion of Kress, seconded by Duffield, it was

Resolved, That the matter of locating the main office at San Francisco be left on the table for discussion at the Houses of Delegates meeting at Sacramento.

The Council agreed that the amendment on incorporation was satisfactory; that there should be standing committees, the number to be determined later; that the president-elect should not give an address at the annual meeting; that the Executive Committee should submit a preliminary draft of the annual budget to the Council each year; that a preconvention bulletin should be issued to contain information for members of the House of Delegates.

In discussing transfers from one county to another, it was stated that members should request transfer within one year and if refused admittance in the new county, might retain their membership in the original county.

Action by the Council: On motion of Duffield, duly seconded, it was

Resolved, That the proposed revised Constitution and By-Laws be prepared in ample time so that each delegate and alternate may have a copy at least two weeks prior to the annual meeting.

Action by the Council—On motion of Hamlin, seconded by Duffield, it was

Resolved, That a special meeting of the Council be held at the Palace Hotel, San Francisco, on Saturday, March 24, 1928, for consideration of the proposed Constitution and By-Laws.

It was decided that immediately after the present meeting copies of the committee report as submitted by Doctor Kress, Mr. Peart's draft and all amendments as presented in printed form at the last meeting of the House of Delegates be sent to all county secretaries.

28. **Adjournment**—There being no further business the meeting adjourned.

Footnote: Items Nos. 13 and 16 refer to the matter of the proposed gift of Mrs. W. E. Musgrave and publication will be made in due time.

Daily tests of the tolerance for dextrose were made on rabbits in which toxemias had been produced with diphtheria toxin. Two units of insulin were injected daily fifteen minutes after the administration of dextrose. The toxemia appeared to have little, if any, effect on the injected insulin. On the basis of these and preceding experiments, it is suggested that the effect of toxemia is that of a suppression of endogenous production of insulin.—*Arch. of Int. Med.*



## UTAH STATE MEDICAL ASSOCIATION

W. R. CALDERWOOD, Salt Lake.....President  
 E. H. SMITH, Ogden.....President-Elect  
 FRANK B. STEELE, Salt Lake.....Secretary  
 J. U. GIESY, 701 Medical Arts Building, Salt Lake.....Associate Editor for Utah

### NEWS

**Prominent Salt Lake Physician Dies**—Dr. Elias Smith Wright, physician in Salt Lake for thirty-five years and former member of the Utah State Medical Association, died at his home, 321 First Avenue, Tuesday of heart trouble. He was born July 23, 1860, in Brigham City. He received his medical education at the New York University. He always was active in the medical associations, having served as president of the Salt Lake County and state medical associations. He was Surgeon-General for the Utah National Guard under Governor William Spry and served as Salt Lake County physician. He was active in the affairs of the Sons of the American Revolution and served as president of the Utah chapter in 1925.

Surviving him are his widow, Mrs. Elizabeth R. Wright, and the following sons and daughters: Dr. Spencer Wright, Mrs. Geneva W. Richards, Helen and Afton Wright of Salt Lake. The following brothers and sisters also survive: Reuben Brigham, Lee and Edward Wright, Mrs. A. E. Snow of Detroit, and Mrs. T. M. Evans of Brigham City.

Funeral services were held in the Twentieth Ward Chapel, and interment was in the City cemetery.

**The outstanding social function** of the medical world in Salt Lake City during the past month was the supper dance given by the ladies of the Woman's Auxiliary at the Newhouse Hotel the evening of February 23.

The officers and ladies of the Salt Lake County Medical Society and the officers of the Auxiliary received the one hundred and fifty guests who attended both from the city and surrounding towns.

Dancing was the main event of the evening, with delightful music furnished by the "Arcadians" orchestra.

Card tables were provided for those who did not desire to dance.

Supper was served in the Rose Room, with an attractive menu of sandwiches, salads, pickles, coffee, ice cream and cake.

Dancing continued until midnight.

This is the second annual dance of this type which the Auxiliary has given, and it is now planned to make it an annual event.

Mrs. Claude L. Shields announced that there would beek, and Mrs. Vivian White were in charge.

**As a part of the nation-wide campaign** of the National Tuberculosis Association, a program was held by the local Tent of the Maccabees at their clubrooms on the evening of March 16.

Officers of the National Tuberculosis Association were present and lectured on the early recognition of the disease, illustrating their lecture with motion-picture films.

This is a part of the national campaign being carried on by the association during March.

**The Holy Cross Hospital Clinical Association** held its regular meeting in the lecture room of the hospital February 20, 1928, at 8 p. m.

Program as follows:

Actinomycosis of the Jaw (Case Report)—S. H. Besley.

Hyperglycemia and Hypoglycemia (Case Report)—J. W. Sugden.

Case of atypical appendicitis with discussion of operative technique—W. T. Ward.

Case report for diagnosis—E. W. Thielen.

Have you paid your dues?

### COMPONENT COUNTY SOCIETIES

#### SALT LAKE COUNTY

The regular meeting of the Salt Lake County Medical Society was held in the Assembly Room of the Medical Arts Building, Salt Lake City, on Monday, February 13.

Meeting was called to order by President William F. Beer. Thirty-seven members and five visitors were present.

Minutes of the previous meeting were read and accepted without correction.

G. N. Curtis presented a fetus of a woman who had had a missed abortion. Films of this patient were shown by L. A. Thody.

A. J. Ridges read an extremely interesting paper on "Mastoiditis" giving the complete history of two patients with this condition followed by severe complications. The anatomy, pathology and treatment were thoroughly discussed. This paper was discussed by F. Leaver Stauffer, I. A. E. Lyons, E. M. Neher, L. C. Snow, and F. H. Raley.

Mrs. Claude L. Shields announced that there would be a dinner dance on February 23, 1928, at the Newhouse Hotel sponsored by the Ladies' Auxiliary Medical Society. Discussed by William F. Beer and E. M. Neher, who moved that a committee of three be appointed, of which committee President Beer should be chairman, to confer with the Ladies' Auxiliary on important questions that might come up.

Applications for membership signed by D. A. McGregor, J. Edwin Scobee, Mary F. Montgomery, and Charles Ruggeri, were referred to the Board of Censors.

A letter from J. U. Giesy was read. This letter outlined the program of the Narcotic Education Week to be held the last week of this month. The following resolution was adopted by the society:

Whereas, Narcotic drug addiction has become a major problem for all mankind, menacing the foundations of civilization and the future of the race, therefore be it

Resolved, That we recommend to our constituencies hearty cooperation with the World Conference on Narcotic Education in the observance of Narcotic Education Week, the last week in February, 1928, and with the World Narcotic Defense Association in its efforts to organize the vital forces of society everywhere to bring to humanity relief, safety and ultimate immunity from this spreading menace.

President Beer announced that the City Commission was contemplating taxing the physicians of Salt Lake City.

G. N. Curtis invited all physicians to be present at the Holy Cross clinical meeting and announced the program.

G. A. Cochran moved that the society go on record as favoring an ordinance providing for the pasteurization of milk and make it compulsory for restaurants, soda fountains, etc., to serve milk in the original bottles. This motion was seconded. Discussed by G. G. Richards, who moved that it be amended to provide that a committee be appointed to interview the Health Commissioners as to the present condition. Seconded and carried.

Adjournment at 9:20 p. m.

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The regular meeting of the Salt Lake County Medical Society was held in the Assembly Room of the

Medical Arts Building, Salt Lake City, Monday, February 27.

Meeting was called to order at 8:10 p. m. by President William F. Beer. Forty-four members were present.

Minutes of the previous meeting were read and accepted without correction.

F. K. Root presented a specimen of cancer of the uterus, outlining the history. Discussed by F. K. Root, H. S. Scott, and E. L. Skidmore.

The following delegates to the Utah State Medical Association were elected: W. L. Rich, L. J. Paul, S. C. Baldwin, M. M. Critchlow, H. P. Kertly, A. C. Callister, Roy Groesbeck, E. F. Root, Leland Cowan, E. M. Neher, and F. L. Peterson.

The following members were elected alternates: L. E. Viko, S. G. Kahn, M. M. Nielson, R. R. Hampton, Helmina Jaidell, and C. L. Shields.

William T. Ward reported for his committee to investigate charity institutions and recommended that the emergency hospital be discontinued providing a proper substitute could be instituted. His report was adopted by the society.

M. M. Nielson read a report recommending that the society endorse an ordinance whereby the city milk supply might be protected. This report was adopted after discussion by Roy Groesbeck, H. S. Scott, G. H. Pack, S. G. Kahn, and F. B. Steele.

L. E. Viko announced the suggested program for the early tuberculosis diagnosis campaign to be conducted throughout this state in March. F. B. Steele moved that it be received and filed. Seconded and carried.

F. A. Goeltz moved that the state society and council be asked for a ruling regarding men from distant counties belonging to the Salt Lake County Medical Society. Discussed by E. M. Neher and E. F. Root. Carried.

Adjournment at 10 p. m.

M. M. CRITCHLOW, *Secretary*.

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#### UTAH COUNTY

February 22, the Utah County Medical Society met at the Hotel Roberts, Provo., at 7 p. m.

Dinner is a pleasant customary preliminary to the scientific program of the regular meetings of the Utah County Medical Society.

Dr. S. W. Oaks read a paper on "Headache in the Practice of Medicine." This paper was little short of classic in its handling of a subject too seldom considered in a scientific way.

Dr. R. G. Clark gave a paper on the "X-ray Treatment of Uterine Bleeding."

This paper also brought out a great many interesting points.

Following a short business session the meeting adjourned.

ARNOLD ROBISON, *Secretary*.

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#### WEBER COUNTY

The regular meeting of the Weber County Medical Society was held February 23, at the Hotel Bigelow, President W. R. Brown presiding.

Dr. E. P. Mills gave the report of the auditing committee on the treasurer's statement for the last two years. The report was accepted as read. The committee suggested that vouchers be used in the future. A motion by Dr. E. P. Mills that the medical journals continue to come to the society, and that they be sent to Dr. R. L. Draper, was seconded and passed.

The minutes of the previous meeting were read and approved. Dr. A. H. Aland reported that only four or five of the doctors had so far sent in the list of "dead-beats." Dr. L. S. Merrill gave a review of the lecture course being given in Ogden by the Uni-

versity of Utah, and encouraged new members to join this course.

Dr. Eugene Smith reported on an epidemic of erythema infectiosum at the Polk School. The paper for the meeting was given by Dr. M. J. Seidner "On the Diagnosis of Early Pulmonary Tuberculosis." Numerous case histories and x-ray films were shown. Drs. J. R. Morrell and Eugene Smith opened the discussion.

Meeting adjourned.

G. M. FISTER, *Secretary*.

**Yale Becomes Practically an Honor School**—A new curriculum has been adopted at Yale University School of Medicine, New Haven, which gives the student liberty in accordance with his ability and makes the institution practically an honor school. The dean, Dr. Milton C. Winternitz, says that for years an objective of the faculty has been to discriminate less between the prospective student candidates for the degree of doctor of medicine and that of doctor of philosophy in various biologic sciences. Without reducing the number, he believes, this procedure will produce better trained physicians and contribute to the movement in preventive medicine. There are several hundred students in the Graduate School of Yale University devoting themselves to one or another branch of biology with the idea of becoming teachers and investigators. As time has gone on they not infrequently have concluded, after one or more years of training in some field of biology, to prepare themselves for the practice of medicine and, to allow this interchange, a greater elasticity between the graduate school and the school of medicine has developed. The Yale school of medicine occupies a unique position in this regard, as no line of cleavage for the university departments occurs, irrespective of the schools they serve. Candidates for a doctor of philosophy and those for a doctor of medicine find themselves in the same building and taught by the same instructors. Experience, the dean continues, has indicated the inadvisability of inelastic stratification of the curriculum for men of this type, so the medical school has introduced the same liberal educational policies for candidates for a doctor of medicine as were introduced years ago in the graduate school for candidates for a doctor of philosophy. The school of medicine now prefers to admit students primarily on account of their interest in the biologic sciences rather than on a preconceived idea of becoming doctors of medicine. The student selects the courses in biology which he desires to pursue and for which the instructor considers he is prepared. Later he concludes whether he will make a more successful doctor of philosophy or a doctor of medicine, and then presents himself for qualification. This is the first examination required of him, and it may be in less than a year and a half after admission to the school or twice as long. Students are not grouped by classes. The student, during the preliminary period, regards his instructor as a co-worker. After the completion of the first test and having determined on his career, he proceeds further with his education according to the same liberal principle and appears again for examination before graduation, after having completed the fundamental courses and having had his thesis accepted. The fundamental courses at Yale have been reduced to a minimum. The student has practically half his time for elective study; he is not taught, but assisted in acquiring knowledge. The class rooms are in many instances designed so that the student is considered practically a member of the staff. A fundamental point of this system is the complete liberty of the student to acquire the knowledge he requires for the completion of his qualification examination or graduation. If he feels a subject may be pursued more efficiently at another institution, at home or abroad, it is his privilege to take advantage of his conclusion, for all that is required of him is the demonstration of knowledge in the subject; grades and hours of work are not even recorded in the administrative office.—*Jour. A. M. A.*

## MISCELLANY

From time to time in this department of California and Western Medicine, appear columns grouped under the following headings: Comment on Current and Recent Articles in this Journal; News; Medical Economics; Readers' Forum; California State Board of Health; and California Board of Medical Examiners. For Book Reviews, see index on the front cover, under Miscellany.

## NEWS

**San Jose Medico-Dental Building**—The Medico-Dental Building of San Jose has just been completed and invitations have been issued to an informal opening on Saturday, April 7, 1928, from 4 to 10 o'clock, Santa Clara and Sixth streets, San Jose.

The structure is a splendid example of the new American architecture, and typifies a harmonious and progressive spirit among the physicians of San Jose.

**The Leslie Dana Medal**—The fourth award of the Leslie Dana Medal, presented annually through the Missouri Association for the Blind to the person selected from the nominations received by the National Society for the Prevention of Blindness, will take place during the 1928 meeting of the American Academy of Ophthalmology and Otolaryngology in St. Louis, Missouri.

Nominations will be received by the National Society for the Prevention of Blindness, together with detailed information prompting the nomination, until the fifteenth day of May, 1928. The medical profession and ophthalmological societies are invited to submit names of persons deemed worthy of this honor to the National Society, under the conditions set forth in the deed of gift, as follows:

(a) Long meritorious service for the conservation of vision in the prevention and cure of diseases dangerous to eyesight.

(b) Research and instructions in ophthalmology and allied subjects.

(c) Social service for the control of eye diseases.

(d) Special discoveries in the domain of general science or medicine of exceptional importance in conservation of vision.

The recipient of the first medal awarded (1925) was Dr. Edward Jackson of Denver. The second annual award (1926) was to the late Miss Louisa Lee Schuyler of New York City, and the third award (1927) was to Dr. Lucien Howe, until recently of Buffalo, now of Cambridge.

**Special Summer Postgraduate Course**—The Stanford University Medical School offers a special summer course for graduates of medicine to be given between Monday, July 2, and Saturday, July 14, 1928. This course will consist of a series of forty lectures and demonstrations covering various fields of medicine, surgery, obstetrics, pathology and pharmacology in their clinical aspects. Four sessions will be held on each week-day, excepting Saturday on which there will be two. Opportunities will be given for discussion of problems and for examination of specimens. In general, the purpose of the course is to review, from the practical standpoint, the more important advances in clinical medicine which have been made during recent years. The course may be regarded as complementary with that of the University of California, which ends on Saturday, June 30, so that practitioners so desiring may find it profitable to take both courses.

A detailed program will be sent on request to anyone interested on application to the Dean, Stanford University Medical School, 2398 Sacramento Street, San Francisco.

**Lectures by Dr. Richard P. Strong**—The third course of two lectures under the Morris Herzstein Lectureship on Diseases of the Pacific Basin Includ-

ing Tropical Diseases will be given by Dr. Richard P. Strong, professor of tropical medicine of the Harvard Medical School, on the evenings of Wednesday, May 2, and Thursday, May 3, at 8 p. m. at Lane Hall, Stanford Medical School, Sacramento near Webster streets, San Francisco. The title of Doctor Strong's lectures will be "Recent Advances in Tropical Medicine."

The medical profession and all medical students are cordially invited to attend these lectures.

**Reunion, Class of 1908, Cooper Medical College**—The twentieth anniversary of the graduation class of 1908, Cooper Medical College, will be celebrated by a special dinner at Hotel Senator at 6 p. m., Wednesday, May 2. The annual state society meeting should see all members assembled in Sacramento. With practically the whole of the 1908 class in central California, there should be a full attendance.

Members are requested to reply to G. H. Taubles, 323 Geary Street, San Francisco, and signify their intention of being present. Informal dress.

**New Officers of the Pacific Coast Surgical Association**—The following were elected 1928 officers for the Pacific Coast Surgical Association: Andrew S. Lobingier, M. D., Los Angeles, president; George W. Swift, M. D., Seattle, first vice-president; A. A. Mathews, M. D., Spokane, second vice-president; Edgar L. Gilcreest, M. D., San Francisco, secretary. Thomas O. Burger, M. D., San Diego; Harold Brunn, M. D., and Philip G. Gilman, M. D., San Francisco; J. Tate Mason, M. D., Seattle; and Robert C. Coffey, M. D., Portland, members of the Board of Counselors.

**California Association of Medical Social Workers**—The seventh annual meeting of the California Association of Medical Social Workers will be held in Room D of the Sacramento Auditorium, Tuesday, May 1, 1928, 2 to 4:30 p. m.

Program:

Medical Social Service in Relation to Orthopedics—Steele Stewart, M. D., Los Angeles.

What is the Medical Social Worker and Why?—Marguerite L. Spiers, superintendent Berkeley Health Center. Discussion: R. G. Broderick, superintendent Stanford University Hospital.

Social Work in Relation to the Hospital and Out-Patient Department—Medical Social Worker from Los Angeles.

Social Worker or Eligibility Clerk—W. P. Shepard, Welfare Division, Metropolitan Life Insurance. Discussion: E. B. Shaw, M. D.; G. N. Hosford, M. D.; H. H. Johnson, M. D.; J. B. Cutter, M. D.; John Sampson, M. D., of San Francisco.

**Summer Courses**—Summer courses for graduates in medicine will be offered in the University of California Medical School, San Francisco, June 4 to June 30, 1928.

Various courses will be offered in general medicine, surgery, the specialties, and laboratory subjects. Correspondence is solicited from those who may be interested.

Address: Dean's Office, University of California Medical School, Parnassus and Third Avenues, San Francisco.

**Rabies in San Francisco**—Dr. William Hassler, health officer of San Francisco, calls the attention of



the medical fraternity to the prevalence of rabies in and about San Francisco.

At the present time there is great importance of giving especial study to the ailments of domestic animals, particularly dogs, since unfortunately for the first time in seventeen years rabies has appeared in this city.

To date there have been two cases of animal rabies, one which occurred in a dog that bit three persons so far as known; all of whom were given Pasteur treatment. This animal also bit several other dogs.

A second case was found March 23. It presented the typical symptoms, and after death the head was examined by the City Laboratory and Negri bodies found.

In view of the fact that about fifty cases have occurred in Marin County recently, and that San Francisco now has been infected, your most valuable assistance in the helping to detect and control this dangerous situation is besought.

**The Fifth Postgraduate Course in Ophthalmology, Vienna, 1928**—The fifth special course of postgraduate study in ophthalmology will be given between October 1 and December 4, 1928. This intensive postgraduate instruction was first originated in Vienna in 1922 as a result of the suggestion by Dr. Edward Jackson of Denver to Professor E. Fuchs. Information concerning the course may be had by writing to Dr. Adalbert Fuchs, Skodagasse 13, Vienna VIII, Austria.

**Some Medical Discoveries of 1927**—Never before in the history of the world have so many highly trained scientists devoted their full time to research. Ours is an age of cooperation in all fields of work and particularly is this so among scientists. An isolated discovery by a chemist or a physicist may give a lead to physiologists or to surgeons which, by reasoning and further experiment, may open an entirely new field in the cure and prevention of disease. The discoveries of modern medicine are no less wonderful than those of electricity. In most new achievements of science a period of development must ensue for the perfection of methods. It is often a far cry from the successful experiment upon animals in the laboratory to its utilization upon a human being and the utmost patience is often necessary while suffering humanity awaits its perfect application when such is possible.

The following are some of the notable discoveries in medicine made during 1927 as compiled by "Science Service." Here and there I have added an explanatory note [in brackets] for the benefit of those who may be unfamiliar with some of the words used.

1. The 1927 Nobel prize for medicine was awarded Professor Julius Wagner-Jauregg of Vienna for his treatment of paresis by inoculation with malaria. [Paresis: General paralysis. Caused in most cases by the germ of syphilis which Doctor Noguchi of the Rockefeller Institute years ago found in the brain of paralytics. This germ is highly sensitive to heat—even the fever temperature in malaria patients kills it or inhibits its activity. The malaria germ is afterward destroyed by quinin and the patient suffers no permanent effect from the treatment. In some insane asylums as many as 60 per cent of the patients who, without this treatment would be doomed to certain death, are definitely benefited or cured.]

2. Cancer in the chicken can be rendered inactive by small quantities of aluminum and calcium salts, according to Mrs. Margaret R. Lewis and Dr. Howard B. Andervont.

3. Scientists at Berlin have shown that it is possible to change simple embryonic tissues into malignant tissue by exposing the former in tissue cultures to the action of arsenic. [Dr. Alexis Carrel of the Rockefeller Institute discovered that the cells of body

tissues—especially those from an embryo (unborn animal or bird) can be grown in proper culture media just as bacteria are. Tissues placed in this serum media years ago and transplanted occasionally to fresh media are still growing lustily. The tissue may be placed under the microscope and the division of cells followed, and the action of bacteria and chemicals upon these growing cells watched. Cancer is now being studied in this way because cancer in human beings is manifested by an excessive growth of embryonic cells which become malignant.]

4. A "heart hormone," or internal secretion that stimulates the heart to keep it beating, was discovered by Dr. Ludwig Haberlandt of the University of Innsbruck. [Hormones are chemical substances secreted usually by a gland and which are poured into the blood stream. They promote activity in some other organ or upon the body as a whole.]

5. Thyroxin, the hormone of the thyroid gland, was made synthetically in the laboratories of University College, London, by Dr. C. R. Harrington and Professor George Barger.

6. Dr. J. J. Abel of the Johns Hopkins University has prepared a crystalline insulin which appears to be a pure hormone necessary for the maintenance of normal sugar metabolism. [Insulin is secreted by the pancreas and its deficiency is the cause of diabetes.]

7. "Synthalin," a German preparation designed to supplement or replace insulin in the treatment of diabetes, was at first widely hailed, but proved a disappointment.

8. Discovery of a new drug, "myrtillin," as a valuable treatment for diabetes was announced to the American Medical Association, by Dr. Frederick M. Allen of Morristown, New Jersey. [Scientists have gone to Siam where plants supplying this drug grow, to study diabetes among the Siamese who are in the habit of using it for this disease.]

9. Liver extract can be used to cure pernicious anemia, Drs. George R. Minot, William P. Murphy and E. J. Cohn of Harvard University announced; also the latter extracted from liver an extract which produces red corpuscles which is probably the active ingredient.

10. A diet that simulates a condition in the body brought about by starvation, has been found by Drs. F. B. Talbot, K. M. Metcalf and Margaret E. Moriarity at the Massachusetts General Hospital in Boston, to give very successful results in treating epileptic children.

11. Vitamin C, the substance that wards off scurvy, is present in milk as well as in the fresh vegetables usually relied on to supply it, was the report by Professor L. F. Meyer, following extensive experiments at the University of Berlin.

12. Ergosterol was declared to be the really active and essential substance in the antirachitic [preventing rickets] vitamin, by a number of investigators working independently of each other.

13. Dr. Alfred F. Hess of New York reported that dried milk that has been treated with ultra-violet light is the most practical of the irradiated foods that have been used to prevent rickets in babies.

14. Preventive vaccination for smallpox and typhoid, large quantities of quinin and elaborate mosquito control measures contributed to checking outbreaks of disease epidemics in the South after the Mississippi flood [and also after the Vermont floods].

15. Drs. E. G. Wakefield and W. W. Hall of the United States Navy Medical Corps completed a systematic survey of heat injuries and one of the first investigations into the physiological reactions underlying sunstroke.

16. Discovery of the germ causing trachoma, a serious disease of the eye that has been especially trouble-

some among the Indians, was announced by Dr. Hideyo Noguchi of the Rockefeller Institute, New York.

17. A curative antitoxin for erysipelas, first developed by Dr. K. E. Birkhaug of Rochester, New York, has been tried out with highly successful results at the Bellevue Hospital in New York, which has one of the largest erysipelas clinics in the world.

18. Streptococcus germs isolated from skin lesions of erysipelas are capable of causing sore throat without any skin affection, it was found by Drs. George F. and Gladys H. Dick, at the John McCormick Institute for Infectious Diseases. [The Doctors Dick discovered that scarlet fever is caused by a particular strain of streptococcus. A skin test for susceptibility to the disease has been devised and a preventive and curative antitoxin (serum) has been produced against it.]

19. Progress in the work of developing a serum to fight the African sleeping sickness was announced by Dr. William H. Taliaferro of the University of Chicago. [The organism which causes this disease is a protozoan belonging to the animal kingdom. The cause of the sleeping sickness of temperate climates is not known. It is probably a germ so small it passes through compact filters and cannot be seen in the microscope. The germs are called filtrable or ultramicroscopic viruses. Hog cholera, smallpox and probably rabies are caused by this kind of germs.]

20. A color test for tetanus and diphtheria toxins has been worked out by Drs. Lucy Mishulow and Charles Krumwiede of the New York City Health Department that will greatly speed up the commercial production of these products. Hitherto toxins have had to be tested out on live guinea-pigs, a time-consuming and not altogether accurate procedure. [Toxin is the product of the growth, usually in liquid media, of bacilli. It is dried and weighed. Its killing dose for guinea-pigs must be accurately determined and then the exact amount of antitoxin (serum from an immunized horse) necessary to neutralize this dose is determined also on a guinea-pig. In this way toxins and the antitoxins used by physicians are standardized by the United States Public Health Service.]

The writer of this letter working at the University of California has recently discovered a new type of the tetanus (lockjaw) bacillus. [A further knowledge of the types of tetanus bacilli may have a bearing upon the improvement of the serum used for the prevention of tetanus.]

21. Dr. Florence B. Seibert of the University of Chicago has produced an active protein in crystalline form which represents a step nearer the solution of the actual chemical nature of tuberculin. [Tuberculin is one of the products of the growth of the germ causing tuberculosis. It is used in testing human beings and cattle for tuberculosis. Unfortunately no serum has proved efficacious in this disease, though a vaccine said to be effective for very young children being brought up in a tuberculous environment has been announced by scientists of the Pasteur Institute. It is one of the few vaccines that is given by mouth.]

22. Statistical evidence that the first-born child in a family is more likely to have certain malformations of mind and body than later children, and that such malformations are not likely to recur in later births in the same family, was presented by Dr. G. F. Still, professor of children's diseases at King's College, London.

23. The utility of x-ray photographs of the head as a positive means of identification was demonstrated by Drs. William L. Culbert and Frederick M. Law of New York when they identified an unknown body with their aid.

24. Heart disease occurs less frequently in children who have had their tonsils removed than in those who have not, said Dr. A. D. Kaiser of Rochester, New York, before the American Medical Association. [Studies recently completed at the Hooper Foundation, University of California under grants from the Coleman Fund for Research concerning the causes of deafness have shown that certain strains of streptococci taken from infected teeth, ears, and tonsils of

human beings and injected into the blood of rabbits cause very definite vegetations (excess tissue growth) in the valves of the heart. They also localize in and cause damage to the joints.]

25. An extract from the liver of dogs that will keep blood from clotting was discovered by Dr. W. H. Howell of Johns Hopkins University.

26. A new anesthetic known as avertin that lacks many of the undesirable features of the anesthetics now in use, is being tried out in German hospitals.

The health and economic welfare of the human race are in the guiding hands of professional men of high scientific standards. If we are to reap to the full the benefits conferred by the constructive attainments of these tireless workers, cooperation of the public is imperative. They cannot do it all.—American Association for Medical Progress, Inc.

**California Hospitals**—In the special hospital number of the *A. M. A. Journal* for March 24 appears the first edition of the American Medical Association Hospital Register. Doctor Colwell, secretary of the Council on Medical Education, states:

"This report is the result of the special census of hospitals taken within the past few weeks, and the statistics, therefore, are new and not obtainable elsewhere. In addition to information that is of general interest, there are a number of facts concerning the hospital situation in California. For example, the California section of the data on page 912 shows that there is a total of 262 general hospitals with a capacity of 24,112 beds and having on the average 15,778 patients, the percentage of occupancy being 65.4 as compared with 66 per cent occupancy for all the general hospitals of the United States. The nervous and mental hospitals of the state number thirty-two, with a capacity of 17,776 and having 16,764 patients.

"Going on through the California section we find similar statistics for each of the other types of hospitals, giving a total of 421 registered hospitals with 49,844 beds and 38,634 patients, plus 2638 bassinets or a grand total capacity of 52,482 beds for all the hospitals in the state.

"Turning a leaf, you will find on page 914 complete statistics for each of the different agencies that control hospitals within the state. Data of interest are found on pages 918 and 919, and especially on page 925, where there is a complete list of all the hospitals in California that are admitted to the A. M. A. Hospital Register, giving the name and location of the hospital; the type of service rendered, the capacity; the average number of patients; whether the hospital is approved for the training of interns; for residencies in specialties, and whether approved by the American College of Surgeons. Its status regarding nurse training is also indicated. You will observe that thirty-seven hospitals in California are approved for internships by the Council on Medical Education and Hospitals, and that twenty-two are approved for residencies in specialties. Seventy hospitals with a capacity of 1373 beds were not admitted to the register.

"A list of fifteen approved clinical laboratories in the state is printed on page 981."

## READERS' FORUM

### Lay Anesthetists—Hospitals Using Same

Sacramento, California,  
March 21, 1928.

California and Western Medicine,  
San Francisco, California.

Dear Doctors—We are enclosing herewith a copy of a resolution adopted at the February 1928 meeting of the Board of Medical Examiners relating that the administration of anesthetics by unlicensed individuals constitutes a violation of the Medical Practice Act. We would appreciate the publication of this resolu-

tion in CALIFORNIA AND WESTERN MEDICINE as specified in the resolution.

Very truly yours,

C. B. PINKHAM, M. D.,  
Secretary-Treasurer.

\* \* \*

BOARD OF MEDICAL EXAMINERS  
STATE OF CALIFORNIA

Sacramento, California,

March 3, 1928.

To Whom It May Concern:

At a regular meeting of the Board of Medical Examiners held at 955 South Olive Street, Los Angeles, February 27 to March 1, inclusive, there came before the board for discussion the question of lay anesthetists and, after the matter was thoroughly discussed, the following resolution was adopted:

Whereas, It has been called to the attention of the Board of Medical Examiners that a number of physicians and surgeons and hospitals throughout the State of California permit anesthetics to be administered by persons not licensed to so do under the Medical Practice Act, such administration of anesthetics by such unlicensed persons constituting violations of the Medical Practice Act, now therefore be it

Resolved, That, inasmuch as the administration of anesthetics by persons not licensed under the Medical Practice Act constitutes a violation of said act, the secretary of the Board of Medical Examiners be, and is hereby, requested to give notice to physicians and surgeons and hospitals in order that physicians and surgeons and hospitals may govern themselves accordingly; and be it further

Resolved, That the publication of this resolution in CALIFORNIA AND WESTERN MEDICINE shall constitute such notice to physicians and surgeons, and be it further

Resolved, That the mailing of a copy of this resolution to hospitals shall constitute notice to said hospitals.

In conformance with the above resolution, we are sending you this mimeographed notice for your earnest consideration.

BOARD OF MEDICAL EXAMINERS,  
STATE OF CALIFORNIA.

By Charles B. Pinkham, M. D.,  
Secretary-Treasurer.

#### Transactions Wanted

March 7, 1928.

California and Western Medicine,  
1016 Balboa Building,  
San Francisco, California.

Gentlemen—We find that we are very much in need of several volumes of the early "Transactions of the California State Medical Society," and it has been suggested that it might be possible to secure one or more of the missing years by a notice placed in the journal.

Will you print for us an item as follows in one of your issues? Yours very truly,

MARY E. IRISH, Librarian.

Wanted—"Printed California State Medical Society Transactions for the years 1881 and 1886, the eleventh and sixteenth sessions."

The Barlow Medical Library, 742 North Broadway, Los Angeles, is anxious to complete its files of "Transactions of the California State Medical Society." It has a complete file to 1901 except for the eleventh and sixteenth sessions, which appeared in the years 1881 and 1886. The librarian, Mrs. Mary E. Irish, would be glad to communicate with any physician having either or both copies.

#### Doctors' Day

This letter was received too late to call attention to the "Doctor's Day" meeting on March 25; but it is published for the welcome tribute of one who has watched with understanding sympathy the surgeon at his work.

Editor, California and Western Medicine,  
San Francisco, California.

Dear Sir—On Sunday, March 25, we are planning to have "Doctor's Day," the first of an annual Sunday to bear this name. Suggestions of "Health Day," etc., have been made, but the term adopted is to be used because it is to be a service in honor of the modern, competent physician and surgeon.

We have been impelled to do this because of a sense of duty to spread the knowledge of physical blessings available because of the skill of modern medical science. All too frequently our attention is called to a calamity in some home because someone for "religious reasons" has refused to admit a doctor to minister with his skill to the person afflicted with an ailment that has been conquered by the modern physician or surgeon. Doctors never advertise and the public is largely ignorant of the blessings available for the people who should seek them.

During the war it was my place to serve as chaplain in a large hospital center at Souilly near Verdun during the St. Mihiel and Meuse-Argonne offensives. I saw the modern surgeon at work unrestricted and free to act immediately as he thought best. I have been told that the percentage of successful results in his favor is 98 per cent; the 2 per cent of deaths included those who arrived dead in ambulances who, being in the ambulances, were counted as hospital patients. Whatever the exact figures may be, my own observation showed me an amazing story to be carried to the world regarding the skill of those great physicians and surgeons.

It was my business, incidentally, to bury the dead and, considering the huge number of sick and wounded, the casualties were astonishingly few among those who reached the hospitals.

As I watch the doctor finish up his long years of study, his hospital intern period, and then his gradual establishment in practice, and at the same time his extreme reticence and modesty in the matter of proclaiming his ability, I have come to honor him more than ever.

I pray for many sick people. My prayers always include the advice, "Call the doctor and do as he prescribes." My prayers are more to quiet the disturbed mind and help to get the patient in the best possible attitude.

Thanking you in advance for any assistance you may care to give to the publicity of this coming day, I am

Sincerely yours,

LESLIE C. KELLEY,  
Rector of St. Paul's.

#### Notice to Industrial Surgeons

The necessity of furnishing a written report on a prescribed form to the employer and deputy commissioner of the United States Employees' Compensation Commission by physicians called upon to treat injured longshoremen and stevedores is stressed in the following letter:

Emma W. Pope,  
Secretary California Medical Association,  
San Francisco, California.

Dear Doctor—I would like to call the attention of the medical profession of California through you to a provision of the United States Longshoremen's and Harbor Workers' Compensation Act which will be of some importance to physicians treating injured longshoremen and stevedores. This provision is not generally known and contains requirements somewhat more stringent than those contained in the compensation act of the State of California.

The provision to which I refer is found in Section 7 (a) of the United States Longshoremen's and Harbor Workers' Compensation Act and provides that where the employer fails to provide medical treatment to an



injured harbor worker who later consults his own physician, no claim for such medical or surgical treatment shall be valid or enforceable against the employer unless within twenty days following the first treatment the physician giving such treatment furnish to the employer and the deputy commissioner a report of such injury and treatment, on a form prescribed by the commission. The form referred to is a form prepared by the United States Employees' Compensation Commission for surgical reports bearing the number U. S. 204. Supplies of this form can be obtained from this office upon request. The form itself carries information concerning this requirement.

The United States Longshoremen's and Harbor Workers' Compensation Act was passed by Congress on March 4, 1927, and took effect July 1, 1927. It applies to all persons performing service upon vessels and shipping upon navigable waters except the master and members of the crews of such vessels. Its provisions parallel fairly closely those of the California Workmen's Compensation Act, but occasional divergences will be noted. It is administered by fourteen deputy commissioners throughout the United States, California being in District No. 13, the headquarters of which are at 518 Mills Building, San Francisco, California.

Thanking you for placing this information before such physicians as are likely to treat industrial cases coming under this law, I remain

Yours very truly,

WARREN H. PILLSBURY,  
Deputy Commissioner.

## MEDICAL ECONOMICS

**Commission on Medical Economics—Committees Appointed**—President A. Lawrence Lowell, chairman of the Commission on Medical Education, has appointed the following committees of the Commission to deal with certain groups of problems:

**Committee on Premedical Training**—Chancellor Samuel P. Capen (chairman), University of Buffalo; Dean Henry G. Gale, University of Chicago; President Walter A. Jessup, University of Iowa; President Clarence C. Little, University of Michigan; Professor Leon B. Richardson, Dartmouth College.

**Committee on Training in the Medical Sciences**—Professor Lafayette B. Mendel (chairman), Yale University; Professor John J. R. Macleod, University of Toronto; Professor Charles R. Stockard, Cornell Medical School; Professor George H. Whipple, University of Rochester Medical School; Professor Hans Zinsser, Harvard Medical School.

**Committee on Clinical Training**—Dean David L. Edsall (chairman), Harvard Medical School; Professor George Blumer, Yale Medical School; Dean Hugh Cabot, University of Michigan Medical School; Professor Elliott Cutler, Western Reserve Medical School; Professor George E. de Schweinitz, University of Pennsylvania; Professor Charles P. Emerson, Indiana University Medical School; Professor Benjamin P. Watson, Columbia University Medical School.

Dr. Willard C. Rappleye, director of study of the Commission is secretary of each of these committees.

## TWENTY-FIVE YEARS AGO \*

### EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Volume 1, No. 6, April, 1903

From the veto message of the osteopath bill by Governor Heber M. Wells of Utah, March 16, 1903:

... Practice in medicine:

Whatever the term or nature of the tenets of the particular school which this bill aims to recognize, its

\* This column aims to mirror the work and aims of colleagues who bore the brunt of state society work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and recent members.

practice must, it seems to me, be considered a branch of the science of medicine. After all, the physician, of whatever school or designation, has to deal with the same physiology, the same conditions, the same laws of cause and effect, in health and disease. All practitioners may not have the same knowledge and the same skill, yet our statutes have wisely provided, as a matter of public policy and protection, that a certain amount of skilled knowledge all of them must have. . . .

... Safeguards swept away:

Science is progressive; advancement cannot be stayed, in the art of healing, least of all; and the dogmatism of disputants, whether in medicine or anything else, must soon yield to the light of truth and reason. Whatever merit osteopathy may have will assuredly find recognition. The present contention is, that in the bill before me the necessary requirements and safeguards with which the law surrounds the physically afflicted are thrown down and swept away. . . .

From an article on Iodid of Potash Eruptions:

... Case demonstrated by Dr. Douglas W. Montgomery (through the courtesy of Dr. L. W. Allen) of a tuberculous iodid of potash eruption, presented before the Academy of Medicine, February 24, 1903. . . .

... In reply to a question as to external treatment, Doctor Montgomery said:

"There is no treatment but the withdrawal of the drug. In about five weeks the iodid rash will subside, leaving nothing, but in some cases, scars, which may be cribriform. . . ."

From the minutes of the thirty-third annual session of the Medical Society of the State of California, held at the Potter Hotel, Santa Barbara, April 21-23, 1903:

... Election of officers:

Doctor Kerr placed in nomination the name of Dr. H. Bert Ellis for the office of president for the ensuing year, calling attention to his long service in the state society. . . .

... Dr. J. Henry Barbat nominated for the office of first vice-president, Dr. W. H. Flint of Santa Barbara. . . .

... For the office of secretary Doctor Brainerd placed in nomination Dr. George H. Evans. . . .

... For treasurer Dr. J. Henry Barbat nominated Dr. E. E. Kelly. Nominations closed and secretary cast the ballot. . . .

... Board of Medical Examiners, Dudley Tait, San Francisco; F. M. Pottenger, Los Angeles; D. E. Osborne, St. Helena; W. S. Thorne, San Francisco; and S. H. Buteau, Oakland, were placed in nomination. . . .

... For delegates to American Medical Association, Drs. C. G. Kenyon and Philip Mills Jones were nominated and elected to serve with Dr. H. Bert Ellis, elected last year.

From the article on "Tropical Diseases in California" by Dr. William Watt Kerr, professor of clinical medicine, University of California:

... Address in medicine.

Mr. President and Members of the Medical Society of the State of California: An opportunity such as this may be profitably utilized by making reference to the increasing frequency with which some diseases that a few years ago were practically unknown to us are now found in San Francisco and, I presume, in every seaport town on the Pacific Coast. . . .

... Plague has been so thoroughly discussed, both in the medical and lay press, that it is not necessary to say much about it at this time. Unfortunately the great weight of expert testimony in this state, and all of that supplied by the federal authorities, goes to prove that plague has existed in sporadic form in California.

To an onlooker the situation in San Francisco is somewhat ludicrous. In February, 1901, the federal authorities sent the Barker, Flexner, Novey commit-

tee, who reported on the existence of plague; next they sent Flint, who made a similar report; he was followed by White, who was instructed to report independently to the Treasury Department all cases of plague that came under his observation; but still the people were dissatisfied, and Surgeon-General Wyman visited California last December, and expressed himself satisfied as to the accuracy of the reports furnished by his subordinate officers. Nevertheless, at a meeting of merchants held a few weeks later, it was again suggested that the federal authorities be requested to send an unbiased committee to San Francisco. . . .

. . . The situation, however, is serious, so far as the commercial interests of the state are concerned, but the peril to them comes not so much from bubonic plague, as from the plague of the daily press. The poor policy followed by some of our newspapers in heaping abuse upon the local health authorities, together with the peculiar conduct of members of the state and city governments, has awakened suspicion in other parts of the country that something is being concealed, and there is a manifest want of confidence in California which competing states have not been slow to use to their own advantage. . . .

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. . . One of the most notable features of clinical medicine during the last two years is the number of patients who have come under observation suffering from various intestinal parasites, hitherto unknown in California. . . .

From an item on Medical Education:

. . . The profession of medicine need not feel shame at any inquiry into the character of its regular practitioners, but only the self-satisfied among us would assert that even a higher level may not be attained. Considering the matter from the viewpoint of the profession, nothing could be more wholesome than a high standard of requirement for admission to membership in a body that has always been regarded by the public as one of general culture and intelligence. . . .

## CALIFORNIA BOARD OF MEDICAL EXAMINERS

By C. B. PINKHAM, M. D.  
Secretary of the Board

According to reports an individual calling himself Mohammed Ali, and falsely claiming graduation from the medical department of the University of California, has recently been making public addresses in Indiana.

Investigation reports relate that Mr. Edward C. Asher, business manager of the Industrial Injury Staff, has recently opened a ten-room office in the Howard Building, San Francisco, and is reported as also conducting a similar office in Oakland and having affiliation with Doctor Early, an industrial surgeon in Los Angeles. The business card reads: "In case of accident to any employee, send him to or telephone Industrial Injury Staff doctors." This appears to be another instance of a corporation practicing medicine, the business being conducted by laymen who pay a small monthly salary to licensed physicians and surgeons.

According to reports Matthus Blankenburg, self-styled "Lord Heir of the Old Castle of Blankenburg," entered a plea of guilty to a charge of violation of the Medical Practice Act in the Superior Court, Riverside, California, on March 3, 1928, and was sentenced to pay a fine of \$300. On failure to pay said fine he will find it necessary to serve 150 days in the county jail. (Prior mention, "News Items," February 1928.) "When some of his asserted patients died he allegedly furnished the State Board of Health with crude death certificates penciled on coarse writing paper and usu-

ally carrying the following asserted wording: 'M. P. Sanchez died this afternoon at 2:30 of the T. B. He was too far gone.' Another certificate introduced in evidence said: "This is to certify . . . died today at ten minutes after three o'clock. He was too far gone. Your truly."

Reports of the continued theft of physicians' bags from their automobiles relate that drug addicts are believed to commit the thefts as narcotics are always extracted.

Charles A. Bailey, M. D., of Los Angeles was, after formal hearing on narcotic charges held before the Board of Medical Examiners February 29, 1928, placed on one year probation with the understanding that he would surrender his narcotic permit.

At a regular meeting of the Board of Medical Examiners held in Los Angeles the license of John Elmer Baker, M. D., was on February 29, 1928, revoked after a formal hearing based on narcotic charges.

The license of J. F. Balzer, Los Angeles naturopath, was revoked by the Board of Medical Examiners February 28, 1928, based on his conviction and incarceration in San Quentin prison.

"The question of what constitutes 'moral turpitude' as defined in Section 14 of the Medical Practice Act, became an issue in the case of Fred J. Barnett, M. D., Los Angeles physician, convicted last October in the municipal court of Los Angeles of selling liquor illegally. After a formal hearing before the Board of Medical Examiners on March 1, 1928, the case was continued to the July 1928 meeting."

A petition of Percy Purviance, Berkeley chiropractic head, asking that Governor C. C. Young be restrained from making appointments to the State Board of Chiropractics has been stricken from the court records of Judge Louis Ward. Judge Ward advised Purviance yesterday that no restraining order could be issued against Governor Young until such time as the appointments were made, and then could be directed against the appointees to prevent their taking office. (Oakland Tribune, March 6, 1928.)

"Bishop" E. R. Cook, head of the Oakland Christian Psychoscopy Institute, is in San Quentin, starting his term of five years to life imprisonment for second degree murder in connection with the death of Mrs. Elizabeth Buckles on December 20 following an illegal operation. . . . Edwin van Dickeson, who under the alias of Dr. I. A. Cole is also charged with the murder of Mrs. Buckles, is in jail awaiting trial. He was arrested in Buffalo, New York, where he fled following the death of the woman. (Oakland Tribune, February 23, 1928.)

Dr. George H. Coulthard, 303 Pacific Avenue, turned his face weeping before Judge Henry M. Willis, who admitted the physician to probation yesterday morning after conviction a few weeks ago on a charge of violating the State Poison Act, in selling of morphin to one Henry Warner, said to be a dope addict and a state special agent employed by the pharmaceutical board. . . . Doctor Coulthard was found guilty by the jury of sale of morphin to the said Special Agent Warner on December 13, 1927. The jury found the physician not guilty of two additional counts of the complaint. (Long Beach Sun, February 26, 1928.)

The board found Dr. James A. Hadley of Arcata guilty of having performed an illegal operation. The young girl patient in the case died shortly after she had received treatment. Doctor Hadley was tried at Eureka for first degree murder in connection with the death, but a jury freed him. The board tried him for the asserted operation and revoked his license (March 1, 1928). He admitted treating the girl, but denied performing such an operation. . . . (Los Angeles Times, March 2, 1928.)

## THE COMMERCIAL EXHIBIT

### The Fifty-Seventh Annual Session C. M. A.—Sacramento

**Keniston-Root Corporation and Benjamin & Rackerby**—Among the interesting exhibits will be that of Keniston-Root Corporation, Los Angeles, and Benjamin & Rackerby, Sacramento, who jointly will occupy Space No. 7 with a complete line of new and up-to-date surgeons' instruments, sterilizers, office furniture, carbon arc lamps, etc. The members of the California Medical Society are invited to make Benjamin & Rackerby's store in Sacramento, located at 919 Tenth Street, their headquarters.

**Certified Laboratory Products** of San Francisco and Glendale will have an attractive display of their various products, including nitrous oxid, medical oxygen, ethylene, carbon dioxide, and intravenous and intramuscular medications.

Competent members of the organization of Certified Laboratory Products will be on duty at the exhibit daily during the meeting to explain to visitors quality, purity, and use of the various items marketed to the medical profession by this company.

**Medical Protective of Fort Wayne**—All members of the California Medical Association and friends are cordially invited to visit Booth No. 22 of the Medical Protective Company. Mr. I. M. Van Slyke of the Los Angeles office and Mr. William H. Williams of the San Francisco office will be delighted to have you call, whether merely to say "hello" and renew old acquaintances or to satisfy yourself on some question of malpractice protection. Consider them at your service and feel free to call upon them for anything which may contribute to making this the most pleasant and successful society meeting you have ever attended.

**Dewar & Hare**—Dewar & Hare, 1205 Fruitvale Avenue, Oakland, wish to thank their many clients for their generous support during the past year.

The quiet enthusiasm which has greeted the results obtained from the use of the "Thermotax" diathermy generator and the "Electrotax" low voltage sine wave and galvanic generator, is due to the true form and ease of control of their outputs. This apparatus is backed by real service, which continues throughout the life of the apparatus.

Dewar & Hare represent The Engeln Electric Company of Cleveland, Ohio, makers of high-class x-ray and physiotherapy equipment.

**Horlick's Malted Milk Corporation** will be among the exhibitors at the meeting of the California Medical Association, and plans unusual activities in the interests of its products: Horlick's the Original Malted Milk, Horlick's Chocolate Malted Milk, and Horlick's Milk Modifier. Representatives of the Horlick firm will be present to explain the uses of these products, which have an application to many of the dietary problems of the medical profession.

Horlick's Milk Modified, a maltose dextrin sugar, has attracted an unusual amount of interest, as have the other products which will be exhibited and demonstrated. This interest, we are told, is indicative of a general increase in the popularity of the Horlick products throughout the country.

**The Bausch & Lomb Optical Company of California** will exhibit at the California Medical Association in the Auditorium at Sacramento.

Instruments to be shown include a complete line of new diagnostic sets, new microscopes with built-on stage, blood counters, new biological colorimeter, rotary clinical microtome and euscoper.

All Bausch & Lomb Optical Company's instru-

ments, including optical glass, are manufactured at Rochester, New York. The first microscope was made in 1872. Since then approximately 200,000 have been supplied to American institutions, physicians, and other workers—a greater number than any other manufacturer, domestic or foreign, can point to. This achievement is the result of correct designs, craftsmanship, fair dealing, and service.

**Affleck Laboratories**, established in Sacramento in 1922, is undoubtedly the most complete institution of its kind in the West. It is composed of three departments: Analytical, Biologic Depot, Exclusive Pharmacy, each a distinct unit but each dependent upon the other to some extent. The Analytical Department comprises chemical, bacteriological, and serological units, operated solely for the physician. The Biologic Depot renders service both to the physician and the laity in its complete stock of biological products always under refrigeration. The Exclusive Pharmacy is for the service of the laity, and is operated entirely for the compounding of physicians' prescriptions from the finest drugs and chemicals.

**Mellin's Food Company**—The exhibit of the Mellin's Food Company will be in charge of Dr. William S. Wallace, showing the well and favorably known preparation of Mellin's Food, for the modification of fresh cow's milk, also their new product, Mellin's Food biscuits for invalids, convalescents, and the aged, and are particularly suitable during the period when the baby is being weaned, and the introduction of solid food becomes necessary, for they contain a large percentage of Mellin's Food, which is recognized everywhere as nourishment especially appropriate in early life.

**The Calso Company**—Appreciating fully the material advantage of asking the attention of the Medical Association to our product Calso Water, we are again making an exhibit at the Sacramento meeting.

We are glad to be a part of the exhibit feature of the meeting and to avail ourselves of this opportunity of continuing to present our product to the notice of the medical profession, from whom we have in the past fourteen years received so much commendation, which we greatly appreciate, and will gladly continue to keep our product 100 per cent ethical.

**The Laboratory Products Company**—What is S. M. A.? S. M. A. is an adaptation to breast milk which resembles breast milk both physically and chemically.

S. M. A., in addition to giving excellent nutritional results in most cases, also prevents rickets and spasmophilia.

It is not necessary to modify S. M. A. for normal, full-term infants. It resembles breast milk not only in its protein, carbohydrate, and salt content, but also in the character of the fat. Since the very young infant can tolerate the fat, as well as the other essential constituents in S. M. A., it is possible to give it, in the same strength, to normal full-term infants from birth to twelve months of age.

**Deshell Laboratories, Inc.**—At the Petrolagar booth there is an active demand for the set of drawings by Tom Jones of the University of Illinois, illustrating various types of constipation and bowel conditions. Sets are given free or mailed. They are helpful in consultations with patients and for comparison with roentgenograms. These pictures are distinctive and somewhat different from the usual anatomical drawing of the bowel in that they show the perspective. They are not flat.



